

58 d 2

A N
E S S A Y
O N
CASTRAMETATION.

BY LEWIS LOCHÉE,
MASTER OF THE
MILITARY ACADEMY, LITTLE CHELSEA.

K

Castrorum munitionem debet tyro condiscere: nihil enim
neque tam salutare, neque tam necessarium, invenitur
in Bello.

VEGETIUS DE RE MILITARI. Lib. I. cap. 21.

L O N D O N:
PRINTED FOR THE AUTHOR,
AND SOLD BY T. CADELL, IN THE STRAND.
MDCCLXXVIII.

✓



T O
HIS ROYAL HIGHNESS
T H E
PRINCE OF WALES.

S I R,

BY this generous and great nation, every effort for the advancement of military science cannot fail of being favourably received. The peculiarity of her present situation occasioned by the hostile designs of her antient enemy, and the consequent exertion of her internal strength, have rendered Castrametation an interesting and popular subject.

Your Royal Highness, indeed, is sufficiently informed, that the choice
and

and distribution of camps, is, at all times, a most important part of military service; and the following attempt for its illustration, however imperfect in the execution, is formed upon the practical observations of the most celebrated writers on the art of war.

My best service is due to the people of Great Britain, for their increasing approbation and favour; and it is peculiarly due to that Great Center of their Dignity and Source of their Protection, with whom your Royal Highness is most intimately connected, for honours and benefits, that, however dignifying to the receiver, are only to be contemplated in the silent exercises of a grateful heart.

Full

(v)

Full of these sentiments, I beg leave
to lay this Essay, with the profoundest
respect, at the feet of your Royal
Highness, and to subscribe myself,

S I R,

Your Royal Highness's

most devoted, and

most obedient servant,

LEWIS LOCHÉE.

THE NEW YORK PUBLIC LIBRARY

ASTOR LENOX TILDEN FOUNDATION

500 N. 5TH ST. NEW YORK, N. Y.

1891

1892

1893

1894

1895

1896

1897

1898

1899

1900

1901

1902

1903

1904

1905

1906

1907

1908

1909

1910

1911

1912

1913

1914

C O N T E N T S.

Definitions and Descriptions	—	—	1
Of the Camp of a Battalion	—	—	17
Distribution of the Front of the Camp for a Battalion of 10 Companies of 60 Men each			20
Distribution of the Depth	—	—	22
Distribution of the Front and Depth for the Field Pieces	—	—	29
Distribution of the Front and Depth of a Battalion of 10 Companies of 100 men each			32
Of the Camp of a Battalion by a different Method	—	—	33
Distribution of the Front of the Camp, by this Method, for a Battalion of 10 Companies of 90 Men each	—	—	35
Distribution of the Depth	—	—	36
Remark	—	—	37
Of the Camp of Cavalry	—	—	38
Distribution of the Front of the Camp of a Regiment of 2 Squadrons of Troops of 50 Troopers each	—	—	39
Distribution of the Depth	—	—	40
Of the Camp Duty	—	—	44

M A X I M S.

Of Camps	—	—	50
Of the Choice of Camps	—	—	57
Of the several Guards	—	—	69

ERRATA.

Page. Line.

- | | | |
|----|----|---------------------------------------|
| 3 | 1 | For Fig. 2. <i>read</i> Fig. 1. |
| 4 | 7 | 6 feet long, <i>read</i> 7 feet long. |
| 14 | 15 | plate VIII, <i>read</i> plate IX. |
| 16 | 12 | plate VIII, <i>read</i> plate IX. |

E S S A Y

O N

CASTRAMETATION.

CASTRAMETATION*, in its precise meaning, is the art of measuring, arranging and ordering camps: but it has sometimes a more extensive signification, including all the views and designs of a general in the choice of his camps.

The space of ground on which an army have pitched their tents, is called, *camp*.

The tents which are of various sorts and forms, serve to lodge and protect the troops against the inclemency of the weather: those for the private men are made of strong cloth, and are large enough to lodge 5 men†.

* Castrametation is derived from the two Latin words *castra* camps, and *metatio* measuring, disposing, or ordering.

† In the French and German service, each tent serves for seven or eight men, and sometimes even for nine.

B

Fig.

Fig. 1. plate I. represents the plan of a tent
for private men.

Fig. 2. its profile lengthways.

Fig. 3. a perspective view.

These tents are fixed by means of three poles and 13 pegs: the poles A are called *standard poles*, and are about 6 feet high; the pole B is called *ridge pole*, and is about 7 feet long: the ridge and standard poles are held together by two iron pins, fixed in the top of the standard poles.

These are the dimensions of the tents for the infantry: those for the cavalry are of the same form, but more spacious, especially behind, to contain the fire arms, accoutrements, saddles, bridles, &c.

Fig. 4. plate I. is the plan of such a tent.

The tents of the officers are not only larger, but of a different form, and are commonly called *marquises*.

Fig.

Fig. 2. plate II. ABCDE represents the plan of an officer's tent. The part FGHK shews the plan of an outer tent, called *marquise*, which serves as a covering to the inner tent ABCDE. This inner tent is generally made of strong ticken, often handsomely lined; but the *marquise* is made of strong cloth, like the tents for the private men: the part *a*, which is called *booth*, contains the bed.

Fig. 2. plate II. is the profile of the inner tent lengthways.

Fig. 3. the profile of the *marquise*, or outer tent, lengthways.

Fig. 4. the profile of both breadthways.

Fig. 1. plate III. a perspective view.

The part *A* the *marquise*.

B the wall of the *marquise*.

C the wall of the tent.

The space between the inner and outer wall, serves to contain the baggage, and occasionally to lodge the officers servants.

The officers tents are also fixed by means of two standards, a ridge pole, and a number of

pegs; and are generally of the same form, but more spacious in proportion to superior rank.

The tent for a lieutenant and ensign, who have but one assigned for both, is now of the same dimensions as that of a captain, and its standards are 8 feet high, and ridge pole 6 feet long.

The ridge pole of the subaltern officers' tent has, however, sometimes been thought of sufficient length, when only 4 feet; in which case the inner and outer tents are of the same form, and the entrance is left between the standards; whereas, in the other tents, the entrance is in a line with the standards.

When the officers, especially subalterns, cannot be accommodated with marquises, they are provided with horse * tents: the plan of such a tent is represented by fig. 4.

* The subaltern officers of the militia, at the encampments of Coxheath, Warley Common, Winchester &c. have as yet no marquise, but put up with horse tents: and it redounds much to their honour, that they are so little anxious about personal accommodations.

There

There is a third sort of tent, called *bell tent*, from its resemblance to a bell, which serves to shelter the fire arms of the infantry from rain.

Fig. 5. plate I. represents the plan of a bell tent seen from the top.

Fig. 6. the elevation of a bell tent.

This tent is fixed by means of a standard only and a few pegs : in the part *A* is marked the number and device of the regiment. The Turks prefer this form for all their tents.

The Greeks and Romans once made use both of tents and huts* ; but as they declined
in

* Two very great commanders, Philip of Macedon and King Pyrrhus, upon seeing the admirable disposition and order of the Romans in their encampments, are reported to have expressed the greatest admiration of the *Roman Art of War*. The Romans distinguished their camps into *castra aestiva*, summer camps ; and *castra hiberna*, winter camps : in the former they made use of tents, and in the latter of huts. At present also, when an army keeps the field late in the year, the troops are ordered to hut, which they

in military spirit, they gradually neglected that practice, and quartered their troops in towns and villages. This method prevailed for a series of years; but as it divided their forces, and exposed them to surprise and defeat, it was at length discontinued, and the practice of encamping was renewed. It was not, however, generally renewed even in the times of the Princes of Orange, the great restorers and promoters of military science and discipline in Europe.

The arrangement of the tents is nearly the same all over Europe; for the general principle is, to dispose them in such a manner as that the troops may form with safety and expedition, in case an enemy should attempt a surprise.

To answer this end, the troops are encamped in the same order as that in which

often perform by means of hurdles large enough to cover their tents, thatching them with straw, sedge, or rushes. Huts dug into the earth, or built with fods, are at an advanced season extremely damp, and of course unhealthy for the soldiers.

they

they are to engage, which being by battalions and squadrons, the post of each battalion and squadron in the line of battle, must necessarily be at the head of its own encampment. We are indebted to Gustaphus Adolphus, King of Sweden, for the method of encamping according to the order of battle*.

* The order of battle is a disposition or arrangement of battalions and squadrons, formed relatively to the situation of the places in which they are to engage, and to the order the opposite army has taken or may take; and that in the order the most advantageous for fighting that opposite army.

There are strictly but two ways of ranging troops: the one is to have an extended front, and that is proper for a plain; the other is to have more depth than front, and that is proper for close, covered, or irregular ground. In the first case, the cavalry and infantry may be ranged one on the side of the other, to fight each by themselves, or they may be mixed together. In the second case, it is the infantry alone who ought to attack, having their cavalry in the rear.

There are different opinions, with regard to the form to be given a battalion and a squadron: the more universal method is, to form the battalion in 3 ranks, and the squadron in 2 ranks; and to allow 2 feet for each man in the ranks of the battalion, and 3 feet in the ranks of the squadron.

By

By this disposition the extent from right to left, of each particular camp of the several battalions and squadrons, will be equal to the front of each in line of battle; and, consequently, the extent from right to left of the whole camp, ought to be equal to the front of the whole army in line of battle, with the same intervals between the several encampments of the battalions and squadrons, as are in the line.

If the extent of the camp were greater than the line of battle, the troops, when drawn up at the head of their encampment, must leave large intervals between them; if less, they would not have room to form with proper intervals. There is no fixed rule for intervals: some would have no intervals, some approve only of small intervals, and some are for intervals equal to the front of the battalion or squadron. M. De Puysegur recommends an interval of ten toises between each battalion, and an interval of six toises between each squadron.

The number of lines for drawing up an army is not fixed, any more than the order of battle;

battle ; both depend on the site of the country, the disposition of the enemy, and the views of the general. The more common method of drawing up an army is in two lines with a body of reserve, the infantry being in the center and the cavalry on the wings* ; by which means there must be a great extent from right to left. To determine this extent, we must know the number of battalions and squadrons which compose the first line, and likewise the intervals between each of them : suppose the first line to consist of 35 battalions of 600 men each, with 34 intervals of 60 feet each ; then, as each of these battalions consists of 200 files,† and each man occupies 2 feet in the ranks,

* There are occasions on which this order is changed. When an army encamps opposite to a defile, or to narrow passes, and among mountains, then the whole infantry may be formed together, with the cavalry behind. When an army encamps on the banks of a river not fordable, and which runs through an open plain, the same disposition is often chosen. Sometimes the nature of the ground requires the whole infantry to form on the right, and the cavalry on the left.

† That is, the battalion is formed three deep. Of late years the prevailing custom has been to form the battalion only two deep : how far this is an improvement, time only can determine.

the extent of each battalion will be 400 feet, and consequently the 35 battalions 14000 feet; which, with the 34 intervals at 60 feet, will make 16040 feet, or 5346 yards and 2 feet, or 3 miles 66 yards and 2 feet.

From the preceding observations it follows, 1st, That the front or principal line of the camp must be in a direction to face the enemy; 2dly, That at the head of the encampment of each battalion and squadron, there must be a clear space of ground, on which they may form in line of battle; and 3dly, That when the space taken up by the army is embarrassed with woods, ditches, and other obstructions, a communication must be opened for the troops to move with ease to the assistance of each other.

The camps of the Greeks and Romans were either of a square or an oval form; and to secure them against surprizes, it was the prevailing custom to surround them with intrenchments*: but the practice of the present

*Many lament the neglect of surrounding our camps with intrenchments, as it is a better security against surprize, and

times is quite different; the security of our camps, whose form is a rectangle, is now supposed to consist in being able to draw out the troops with ease and expedition at the head of their respective encampments; and therefore, whatever particular order of battle is regarded, as the best disposition for action, the whole camp should be formed in such a manner, as that the troops may be assembled in that precise order and disposition as quickly as possible; that is, according to the observation already made in page 6, the post of each regiment, in the line of battle, should be at the head of its own encampment. By this method every battalion and squadron covers its own tents, where they can all conveniently lodge, and from whence they can turn out with safety and expedition on any emergency.

Plate IV. represents part of the camp of an army in three lines*, with the intervals be-

and requires but few, and not strong guards. The Turks and other nations of Asia, when in an open country, fortify themselves with waggons and other carriages.

* The practice of the times is to endeavour to outline an enemy; and, therefore, generals seldom spare a third line. But the method commonly recommended, is to form

tween the battalions and squadrons less than the front of each. Each line is formed in order of battle at the head of their own encampment.

A represents the battalions of the first line in order of battle, at the head of their own encampment **B**.

C represents the squadrons of the first line in order of battle, at the head of their own encampment **D**.

E represents the battalions of the second line in order of battle.

F their encampment.

G represents the squadrons of the second line in order of battle.

H their encampment.

I represents the battalions of the third line in order of battle.

K their encampment.

L represents the squadrons of the third line in order of battle.

two lines, and to have a body of reserve, either on the right or left, or in the center of either the first or second line, as occasion may require.

M their

M their encampment.

N represents the intervals between the battalions.

O represents the intervals between the squadrons.

P represents the intervals between the battalions and squadrons.

R E M A R K.

The second and third lines are a repetition of the first, only with this variation, that the intervals of the second line correspond not to those of the first. The distance between the front of the first line, and the front of the second line, is never less than 200 yards but is generally about 400 yards, and even more when the ground permits it : the distance between the second and third lines, is much the same as the distance between the first and second,

Previous to a particular description of the encampment of a battalion or squadron, it may not be improper to mention a few further circumstances relative to the camp in general.

The residence of the commander in chief, is called *head quarters*; and in this place the quarter-master-general, adjutant-general, the commanders of artillery and engineers, pay-master-general, and other principal officers, are lodged. The town or village chosen for this purpose commonly gives name to the camp: it should be situated in the rear of the camp, as near as possible to the center, and so far out of the reach of the enemy that he can neither cannonade or insult it, a circumstance of greater importance than any convenience of lodging. In plate IV. the head quarters are taken in the rear, and about the center of it; and in plate VIII, where they are represented by Q, they are taken on the left of the rear of the army. The general officers commanding wings, have their residence in the villages nearest their command*.

* When a house happened to be near the front or rear of a regiment, the commanding officer was allowed by the Duke of Marlborough to make use of it, unless the quarter-master-general, or the fourier de la cour, had marked it, but he was not permitted to lodge in it. The King of Prussia allows not even his generals to be quartered in houses, unless the situation is such as to require but an ordinary guard for their security. Formerly generals lodged in tents; and, consequently, by reducing the guards, gave less trouble to the troops.

The

The hospital is commonly settled in some convenient place in the neighbourhood of the army, but rather remote for fear of infection, and, if possible, near some river: this is called the *flying hospital*; but there are others in great towns, to which the sick and wounded, who can bear the fatigue of removal, are conveyed.

As bread is indispensably necessary for the subsistence of the army, care is taken to establish ovens in the neighbouring villages: the bread is conveyed in covered waggons, called *caissons*, and escorted by detachments. When villages are at too great a distance, the bread is baked at the camp in portable ovens.

The space of ground occupied by the artillery, with its furniture and attendants, is called *park of artillery*; and is often placed opposite the center of the infantry of the first line, 3 or 400 paces in front*. If the ground

* It being now the practice to have a numerous artillery, by this method, the space taken up by the park of artillery must on the attack of the army in its camp, be a great impediment to the motions of the first line.

does

does not admit of placing the park of artillery in the front of the first line, it is placed behind its center ; but in that case, it seems preferable to place it in the rear of the second, to prevent the confusion which must ensue, if it is necessary for the second line to advance in support of the first. The park of artillery is guarded by the battalions of artillery, who are encamped on the right and left of the park. The space taken up by the park of artillery, which is represented by E in plate VIII. is in the rear, and about the center of it.

The success of a campaign depending almost always on the choice of camps, regard must be had to conveniency of situation, that it be healthy and commodious for man and horse, and easily and amply supplied with wood, straw, and especially with wholesome water. But the chief considerations relate to the disposition and views of the enemy, and the success of our own designs, which are too important to be neglected for any other. These particulars are comprehended in the subjoined maxims on the choice of camps, which are selected from the ablest writers.

Of

Of the Camp of a Battalion.

TO answer the principal object in the arrangement of a camp, which is, that both officers and men may repair with facility and expedition to the head of the line; the tents are placed in rows perpendicular to the principal front of the camp, with spaces between them, called *streets*. The common method is, to form as many rows of tents as there are companies in the battalion; those for the privates in the front, and those for the officers in the rear. See Plate V.*

The several companies of a battalion are posted in camp, in the same order as in line of battle; that is, the company of grenadiers on the right, and that of light infantry on the left, the colonel's company on the left of the grenadiers, the lieutenant colonel's on the right of the light infantry, the major's on the left of the colonel's, the eldest captain's on

* This plate is referred to throughout, unless expressed to the contrary.

the right of the lieutenant colonel's, and so on, from right to left, till the younger come in the center.*

The hat companies are posted two by two; that is, the tents of every two of these companies are ranged close together, to obtain, though fewer, larger and more commodious streets: the entrance of the tents of these, and of the grenadiers and light infantry companies, faces the streets, except the first tent of each row, the entrance of which faces the front of the camp.

The number of tents in each perpendicular row, is regulated by the greater or less strength of the companies, and the number of men allowed to each tent; which being at present 5 men, it follows, that a company of 60 men will require 12 tents, and a company of 75 men 15 tents; that is, when the companies consist of 60 men, each perpendicular row will consist of 12 tents; and when the companies have 75 men, those rows will have 15 tents.

* The reverse with regard to the hat companies, is often now practised; that is, the field officers' companies are posted in the center, and so on, till the younger come to the right and left.

And

And as it is the custom to form the battalion 3 deep, and to allow 2 feet for each man in the ranks, it follows, that the front of the camp of a battalion of 10 companies of 60 men each, which is 400 feet,* will be divided into 2 single and 4 double rows of tents and 5 streets; and that the front of the camp of a battalion of 12 companies of 78 men each, which is 624 feet, will be divided into 2 single and 5 double rows of tents with 6 streets; that is, the number of streets will be half the number of companies † in the battalion.

* This supposes the battalion drawn up in 3 ranks; for 600 men form 200 files, which, at 2 feet per file, is 400 feet: if it was in 2 ranks, the front would be 600 feet.

† When the number of companies is not even, the colonel's company is posted in a single row, as well as the grenadiers and light infantry: by this means, if a battalion consisted of 9 companies, the front would then be divided into 3 single and 3 double rows of tents with 5 streets; if the battalion consisted of 15 companies, the front would then be divided into 3 single and 6 double rows of tents with 8 streets.

In the same case, the light infantry company and that of the lieutenant-colonel might be posted together, observing to let the tents of the light infantry front the interval: by this method, the grenadiers would form the only single row; and consequently, if a battalion consisted of 9 companies, the front would be divided into one single and 4 double rows of tents with 4 streets: the prevailing method makes the number of companies even.

**Distribution of the Front of the Camp
for a Battalion of 10 Companies of
60 Men each, which is 400 Feet,**

For pitching 4 double rows of tents for the hat companies, at 21 * feet each	84 feet
For pitching 2 single rows, one be- ing for the grenadiers, and the other for the light infantry, at 9 feet each	18
For 5 streets at † 59 $\frac{1}{3}$ feet each	298
That is, together,	400

* Because the length of a tent is 9 feet, many allow only twice that length for the double rows; but, for convenience of pitching, &c. 21 feet are here allowed for the double rows.

† This is evident; for the difference, 298 feet, between the sum of the 4 double and the 2 single rows of tents, which is 102 feet, and the front 400 feet, divided by 5 the number of streets, the quotient will be 59 $\frac{1}{3}$ feet for the breadth of each street, but if the battalion was drawn up in two ranks, then, as the front would require 600 feet, each street would be 99 $\frac{1}{3}$.

When

When the number of streets is not even, it is customary to make the middle street larger than the others, with a view to increase both convenience and appearance. It is on that account that, in plate V. this street which is called *grand* or *main street*, is larger than the others : in this instance it is 98 * feet, and consequently the remaining streets must be 50 feet each ; for 4 times 50 and 98 make 298, the difference between the whole front, and the ground taken up by the tents in front.

* The main street is sometimes fixed for every battalion, though the strength of the battalions should be different. It is observable, that, in every case, the difference between the whole front, and this large street, added to the space taken up by the tents in front, will be the breadth for the remaining streets : that is, if a battalion consisted of 12 companies of 78 men each, the difference between 624 feet, the front of the battalion, and 75 feet, the supposed breadth of the large street, added to 123 feet for the space to pitch the 2 single and 5 double rows of tents, is 322 feet, to be divided among the remaining streets ; that is, $64\frac{2}{3}$ feet, for the breadth of each street.

Distribution

Distribution of the Depth of the Camp of a Battalion of 10 Companies of 60 Men each, which is 253 Yards*.

	Yards.
From the parade of the quarter-guard†, to the center of their bell tent, called, bell of arms - - -	4
From the center of the bell of arms, to the front standard of the officer's tent	8
	12

* The distribution of the depth of a camp varies in different campaigns: in general, it is most advantageous, for the sake of expedition, to have as little depth as possible; but this is always determined by the particular nature and circumstances of the ground. This distribution, though it does not, perhaps, agree with the regulation of the present campaign, and is greater than some situations will admit of, yet, upon examination, it will be found, in most cases, productive of ease and convenience.

† The quarter-guard, which is generally commanded by a subaltern officer, consists of about 30 men, and serves to maintain good order in the camp. This guard, besides its own sentry, posts two sentries on the colours, and one on each flank of the bell of arms, one on each flank of the officer's street, and one to each field-officer's tent. The quarter-guard fronts outwards; and the front standards of the tents for the guard, are in a line with the front standards of the center companies' tents, and also in a line with the cen-

	12
From the front of the officer's tent*, to the first line of the parade of the bat- talion - - - - -	50
From the first line of the parade of the battalion, to the center of the bell of arms† - - - - -	12
From the center of the bell of arms, to the front of the serjeants' tents‡	4
For pitching 12 tents, with their inter- vals, at 3 yards each - - - - -	.36
From the rear of the battalion tents, to the front of the subalterns' -	15
	129

ter of their bell of arms. It was formerly the custom of this guard to front inwards; and considering that it was placed merely to maintain good order in the camp, it does not seem to have required any alteration.

* This is commonly a horse tent, and fronts outwards: its standards are in a line with the standard of the bell of arms, which is in a line with the center of the main street.

† These are in a line with the standards of the serjeants' tents, and front inwards. The bell tents might be more convenient, if they were placed in the center of the several streets; the Austrians have frequently made use of them placed in that manner, and have found them not only convenient but advantageous.

‡ These tents front the camp, and are assigned to the serjeants; but it were better to assign them to the picket men of each company, and to divide the serjeants among the men.

From

	129
From the front of the * subalterns,' to the front of the captains' -	15
From the front of the captains', to the front of the lieutenant colonel's and major's†	10
From the front of the lieutenant colonel's and major's, to the front of the colonel's ‡ - - - - -	10
From the front of the colonel's, to the front of the staff § officers' -	10
From the front of the staff officers', to the first row of the batmens' tents	10
From the first row of the batmens' tents, to the first row of pickets** -	2
	186

* The tents or marquises of these front the captains', which front the line of battle: the space between the subalterns' and the captains' tents, form a street which is called *officer's street*. The method of fronting the subalterns' tents, may add to appearance, but does not promote expedition.

† The tents for these front the center of the streets, on the right and left of the battalion.

‡ The colonels' tent fronts the center of the main street.

§ Their tents front the center of the streets, on the right and left of the main street.

|| Their tents front their horses.

** Pickets are stakes which the batmen drive into the ground before their tents, at about 2 yards distance from each other. From one picket to another is stretched a rope, to which the batmen tye their horses.

From

From the first row of pickets, to the second row	- - -	186
From the second row of pickets, to the second row of the batmens' tents	-	10
From the second row of the batmens' tents, to the front of the grand futler *		2
From the front of the grand futler, to the center of the kitchens †	-	10
From the center of the kitchens, to the front of the petty futlers' ‡	-	15
		238

* The grand futler, for the sake of convenience, is placed in the rear of the colonel's tent.

† The kitchen for each company, is a space of 16 feet diameter, with a ditch surrounding it 3 feet wide, the opposite bank of which serves as a seat for the men who dress the viſuals. The kitchens of the flank companies are contiguous to the outline of the camp; and the intermediate space is generally diſtributed equally for the remaining kitchens: and as each tent forms a meſs, each kitchen ſhould have as many fire places as there are tents in the company. The French method of encamping, fixes the kitchens immediately after the tents of the private men.

‡ The front poles of their tents or huts, are in a line with the center of the kitchens. Each futler is allowed 6 yards in front, and 8 yards in depth.

E

From

From the front of the petty futlers', to
the center of the bell of arms of the
rear guard *

15

Total depth 253

When the battalion is in the first line, the privies are opened in the front, and at least 50 yards beyond the quarter-guard; and when in the second line, they are opened in the rear of that line.

To distinguish the regiments, colours are fixed at the flanks, and at the quarter and rear guards, called *camp colours*†, in the following Distribution:

* This guard, which serves to maintain good order in the rear of the camp, is commanded by a non-commissioned officer: it fronts outwards, and the front standards of the tents are in a line with the center of their bell of arms, and distant from each other six yards. Their parade is four yards from the bell of arms.

† Camp colours are about a foot and a half square; their colour is the same with the facing of the regiment, and the number of the respective regiment is upon each. The distribution of them on the flanks, might serve as lines for the officers and men when drawn up. In 1747, his late Royal Highness the Duke of Cumberland, to prevent passing between

	Yards.
From the center of the bell of arms, to the first camp colour - - -	4
From the first camp colour, to the second	4
From the second camp colour, to the third - - - - -	4
From the third camp colour, to the fourth	15
To the quarter and rear guards, one each.	

The colours and drums of each battalion, are placed at the head of its own grand or center street, and in a line with the bell of arms of the several companies.

The espontoons are placed at the colours, with the broad part of their spears to the front.

The halberts are placed between, and on each side of the bells of arms, with their hatchets turned from the colours.

tween the camp colours, issued the following order: "The
" camp colours are to be placed on the right and left flanks
" to the line of parade, from the outside of the bell of
" arms, with little chevaux de frize between them."

When two field pieces * are allowed to each battalion, they are posted to the right of it, in the following order :

* The practice of allowing cannon to every battalion, was first introduced by Gustavus Adolphus ; who, to obviate the inconvenience and delay which pieces of cannon, either of brass or iron, must necessarily produce by their great weight, made them of leather ; an invention, that, like many other excellent inventions of that great man, is now lost.

Distribution

Distribution of the Front for the Field Pieces,

	Yards
From the right flank, to the center of the first gun - - -	4
From the center of the first gun, to the center of the second gun -	6

Distribution of the Depth.

The muzzles of the pieces, in a line with the front standards of the serjeants' tents.

The rearmost of the gunners' tents, in a line with the rear of the battalion tents,

The subaltern of artillery, if any, in a line with the subalterns' tents.

R E M A R K.

The distribution in encampments, is much the same throughout Europe with respect to the

the private men : the difference is only with the officers ; which in some instances has been so great, that Mr. Le Blond has complained of the want of regularity in the French army, in the distribution of the officers' tents.

The difference in distribution between the English and Germans, is chiefly confined to the position of the adjutant's tent. The former place it in the rear ; but the latter place it in a line with the tents of the serjeants, and in the center of the grand street. Here the adjutant is undoubtedly in his right place, more easily to be found, and always ready for the performance of his duty. The English, indeed, in some measure supply this defect, by posting the serjeant-major, who is the adjutant's assistant, on the right of the battalion and in a line with the serjeant's tents.

The practice of forming as many perpendicular rows of tents, as there were companies in the battalion, which during the two last wars were fixed at 100 men each, was found very inconvenient on account of the great depth, which 20 tents placed behind each

other necessarily produced, and the following method was adopted: each company formed a double row; that is, each company was considered as two: by this means, every perpendicular row consisted only of 10 tents; and the whole front of the battalion, when consisting of 10 companies, was divided into 10 double rows of tents* and 9 streets, nearly after the following distribution. See Plate VI.

* By this method, the tents of half the grenadiers, and of half the light infantry companies, were obliged to front the intervals.

But this method was, in many instances, rejected, and the following adopted. All the companies were divided: one half of the grenadier's company, and one half of the light infantry, formed each a single row; the remaining half of the grenadier's company was posted close to the half of the colonel's company, with which it formed the first double row to the right; and the remaining half of the light infantry company was posted close to the half of the lieutenant-colonel's company, with which it formed the first double row to the left; and so on, through the whole battalion: consequently, the front of a battalion of 10 companies, by this method, was divided into 2 single and 9 double rows of tents with 10 streets.

Distribution

Distribution of the Front of the Camp
of a Battalion, by this Method, of
10 Companies of 100 Men each,
which is 668 Feet.

For pitching 10 double rows of tents,

at 18 feet each - 180

For 9 streets at $54\frac{2}{9}$ feet each * 488

That is, together, 668

By this method of encamping, the distribution of the depth, is not changed ; only that instead of having 20 private mens' tents placed behind each other, there are no more than 10. What has been already said on this subject, with an inspection of plate VI. will, it is presumed, render any further observations needless.

* For the difference, 488 feet, between the space necessary to pitch 10 double rows of tents, which is 180 feet, and the whole front 668 feet, being divided by 9, the number of streets, the quotient will be $54\frac{2}{9}$ feet, for the breadth of each street. When this method of encamping was in use, the middle street was generally fixed at 25 yards, and consequently the remaining streets were only $51\frac{1}{2}$ feet broad.

Of

Of the Camp of a Battalion, by a different Method.

THE method of encamping by placing the tents in rows perpendicular to the principal front of the camp, and of forming as many such rows of tents as there are companies, though apparently convenient; yet, on account of the great depth which so many tents placed behind each other must produce, the grand object, which is, that both officers and men may repair with facility and expedition to the head of the line, is in a great measure defeated.

The following method being more convenient from its not requiring so much depth, it is hoped it will meet with proportionable approbation, especially as it is more conformable to the grand principle, which is to encamp in the same order in which the troops are to engage.

F

It

It consists in placing the tents in three rows, parallel to the principal front of the camp; that is, suitable to the 3 ranks in which the battalion is drawn up :* the tents of the first row, which front the camp, are for the men of the front rank ; the tents of the second row front the rear, and are for the men of the center rank ; and the tents of the third row, which front the center row, are for the men of the rear rank. See plate VII.

The number of tents of each parallel row, is regulated by the strength of the battalion, and the number of men allotted to each tent. This number being at present 5, it follows, that a battalion of 900 men will require 180 tents; that is, 60 tents in each of the three parallel rows, which, at 6 feet for each tent, will be 360 feet for the space taken up in front by the 60 tents ; and, consequently, there will remain 240 feet, for the streets between the companies : hence the front of a battalion of

* In two rows, if the battalion is drawn up in two ranks ; in four rows, if the battalion is drawn up in four ranks.

10 companies of 90 men each, will be divided into 60 perpendicular rows of tents and 9 streets; that is, as many streets but one, as there are companies.

Distribution of the Front of the Camp,
by this Method, for a Battalion of
10 Companies of 90 Men each,
which is 600* Feet.

For pitching 60 perpendicular rows of

tents, at 6 feet each - 360

For the breadth of the center street 80

For the breadth of the 8 lesser streets,

at 20 feet each - - 160

That is, together, 600

* This supposes the battalion drawn up in 3 ranks; for 10 companies of 90 men each, make 300 files; which, at 2 feet each, make 600 feet for the front.

Distribution of the Depth of the Camp,
by this Method, of a Battalion of
10 Companies of 90 Men each,
which is 227 Yards.

	Yards.
From the center of the bell tents front- ing the first row of tents, to the front of that row - - -	4
From the front of the first row of tents, to the front of the second row of tents	7
From the front of the second row of tents, to the center of the second row of bell tents - - -	4
From the center of the second row of bell tents, to the front of the third row of tents - - -	4
From the front of the third row of tents, to the front of the subaltern officers' tents - - -	10

The distribution of the remainder, (except
the adjutant's tent, which is placed in a line
with the tents of the first row, and in the
center

center of the grand street) is the same as in the other method, for which see page 22 to page 26.

R E M A R K.

The objections against this method, are, that it requires two bell tents for every company; and that the spaces between the companies, that is, the streets, are not so large, nor so commodious, as by the other method. With regard to the first objection, the inconvenience is no greater than that which arises in the other method, when the companies consist of 100 men each, for then they require two bell tents; and with regard to the second objection, it must cease, when it is considered, that the number of streets is almost double, and the depth of the tents not so great.

This method, however, would be still more advantageous, if more men were allotted to each tent, as is the practice in the French and other foreign service; for the streets would be wider, and intervals might be left between the tents for more convenient pitching.

Of

Of the Camp of Cavalry.

THE tents for these, as in the camp of a battalion, are placed in rows perpendicular to the principal front of the camp; and the number of them is conformable to the number of troops.

The horses of each troop are also placed in rows perpendicular to the front, and consequently parallel to the tents, with their heads towards them. See plate VIII.

The number of tents in each perpendicular row, is regulated by the strength of the troops, and the number of troopers allotted to each tent; which being 5, it follows, that a troop of 30 troopers will require 6 tents, and a troop of 60 troopers 12 tents.

Distribution

Distribution of the Front of a Camp
for a Regiment of 2 Squadrons of 3
Troops of 50 Troopers each, which
is 450 Feet.

For pitching 6 rows of tents, with the intervals between the tents and the pickets, length for the standing of the horses, and space for receiving the dung, at 14 yards* each	-	-	252
For 2 back streets, at 30 feet each			60
For 3 streets, at 46 feet each	-		138
			450

This supposes the squadrons drawn up in 2 ranks ; for 6 troops of 50 troopers each form 150 files, which, at 3 feet for the front of each, give 450 feet. If they are supposed drawn up in 3 ranks, then the front should be 300 feet ; for 6 troops of 50 troopers each form 100 files, which, at 3 feet for the front of each, give 300 feet.

	Yards.
* That is, for pitching a horseman's tent -	3
From the front poles of the tents, to the pickets	3
From the pickets, to the edge of the dung -	6
Breadth of the space for the dung -	2
	14
	Distribution

**Distribution of the Depth of a Camp
for a Regiment of 2 Squadrons of 3
Troops of 50 Troopers each, which
is 220 Yards.**

From the first line of parade, to the center of the bells of arms	-	-	20*
From the center of the bells of arms, to the front poles of the quarter masters' tents †	-	-	4
From the front poles of the quarter mas- ters' tents, to the first picket ‡	-		5
Allowed for the standing of 50 horses			50
			79

* The first line of parade is sometimes fixed at 30 yards from the bells of arms.

† The quarter-masters' tents front the camp.

‡ Pickets are stakes of about 3 inches diameter drove into the ground, so as to leave 3 feet above the surface. From one picket to another is stretched a rope to tie up the horses and prevent their turning round; but horses fixed in that manner being exposed to the inclemencies of the weather soon perish. The Princes of Orange paid great attention to their horses, and it was their custom to cover them with an awning. Marechal de Saxe recommends a tent, that may serve not only for the troopers but for their horses.

For the standing of the subalterns' horses,*	79
which are in a line with the troop	10
From the rear of the subalterns' horses,	
to the front of the subalterns' tents	12
From the front of the subaltern's tents,†	
to the front of the captains' -	15
From the front of the captains', to the	
front of the lieutenant-colonel's and	
major's - - - - -	15
From the front of these, to that of the	
colonel's - - - - -	10
From the front of the colonel's tent, to	
the front of the staff officers' tents	14
From the front of the staff officers' tents,	
to the front of the grand sutler's -	15
From the front of the grand sutler's, to	
the center of the kitchens - -	20
From the center of the kitchens, to the	
front of the petty sutlers -	15
From the front of the petty sutlers, to	
the center of the bells of arms of the	
rear guard - - - - -	15
Total depth	<u>220</u>

* All the other officers have their horses in the rear of their tents.

† Each subaltern officer of cavalry has generally a tent for himself.

The

The parade of the standard guard is advanced 4 yards before the center of their bells of arms.

The bells of arms * are in a line with the pickets.

The standard guard tents are pitched in the center, in a line with the quarter masters'; and are 3 yards distant from center to center.

The camp colours of the cavalry are also of the same colour as the facing of the regiment, with the rank of the regiment in the center: those of the horse, are square like those of the foot; and those of the dragoon-guards, and dragoons, are swallow-tailed.

The dung of each troop is laid up behind the horses.

The encampment of a single battalion and of a single squadron, being once well understood,

* Cavalry are not always allowed bells of arms; in which case they keep their arms in their respective tents; but as that is liable to many accidents, the practice of allowing them bells of arms is commendable.

the tracing out a camp for an army, however strong, will be attended with no difficulty; for an army being composed of battalions and squadrons, the difference consists only in a greater or less combination of the same parts.

The direction of the several lines for the encampment being fixed, the quarter-master-general * consigns the allotment of ground, for

* At the opening of a campaign, the quarter-master-general distributes an order of encampment for the whole army, which, as it stations the troops in the same order in which they are to engage, is called also *order of battle*.

The order of encampment, during the late wars, generally allotted for the front of every battalion 120 yards, for the depth 320 yards, and for the intervals 30 yards; for the front of a regiment of cavalry 200 yards, for the depth 258 yards, and for the intervals 60 yards. As a battalion then consisted generally of 9 companies of 73 men each, it follows, that the front of each was at the rate of 1 foot and 8 inches nearly for each man in the ranks.

When an army marches, the major-general of the day, quarter-master-general, majors of brigade, and quarter-masters of the different corps, with their camp-colour-men, attended by an escort, part of which are the new guards, set forward to mark out the encampment, and to post the guards necessary for the security of the camp.

every particular battalion and squadron *, to the quarter-masters † of the different corps, for their respective distribution.

Of the Camp Duty ‡.

THE guards are both ordinary and extraordinary : the ordinary guards are relieved regularly at a certain hour every day ; the ex-

* For the sake of dispatch, the quarter-master-general consigns the allotment of ground for every particular brigade to the majors of brigade ; and these consign the allotment of ground for every battalion or squadron in their respective brigades, to the quarter-masters of the different corps for their distribution. A brigade of foot consists generally of 4 battalions, and a brigade of cavalry of 6 squadrons.

† One serjeant of a regiment, and one man of a company, are appointed to assist the quarter-master in tracing out the encampment of their regiment ; the serjeant is called *quarter-master-serjeant*, and the man *camp-colour-man*.

The quarter-master, on his receiving the general order of encampment, marks on a cord, of the length of the allotted front, the distribution of that front ; and by stretching this cord on the ground, and raising perpendiculars where he had made the several marks, he obtains almost the whole distribution of the camp.

‡ By camp duty is here understood, the duty of the guards ordinary and extraordinary.

traordinary

traordinary guards are all detachments commanded on particular occasions for the further security of the camp, for covering the foragers, for convoys, escorts, or expeditions.

The ordinary guards are distinguished into *grand guards*, standard † and quarter guards, rear guards, picquet guards, and guards for the general officers, train of artillery, bread wag-gons, quarter-master-general, majors of brigade, judge advocate, and provost marechal.

The grand guards, which are both of cavalry and infantry, are posted round the camp, to prevent surprizes and sudden attacks of the enemy ; to protect the soldiers who are ordered out for wood, straw, and water ; and to discover whatever is passing to and from the camp : they detach some small parties as an advanced guard, and others to obtain intelligence of the movements of the enemy. These advanced guards and parties, and indeed all detachments that are posted beyond the grand guards, are called *outposts*.

† The standard guard is of the same nature as the quarter guard ; and are both appointed to preserve good order through the camp :

The

The grand guards of cavalry take their station in places clear of woods, that they may command as large a space of ground as possible ; and dispose their outposts on the surrounding eminences, for discovering distant objects, and observing whatever passes to and from the camp.

The grand guards of infantry generally fortify their respective posts, which are usually churches, church-yards, villages, farms, gardens, and the like ; and dispose their outposts in secret avenues, through which it is likely the enemy may attempt to pass unnoticed ; preserving, however, such a communication for their mutual succour, as will secure them from sudden surprizes ; and this precaution is indispensably necessary for guards of all kinds.

The vedettes and sentries of the different grand guards, and of their outposts, are stationed within sight, not only of their guards, but also of each other, that nothing may pass unnoticed.

The

The grand guards of infantry have in general only one and the same post, but those of cavalry have both a day and a night post: the day post is about a mile from the camp, and the night post at most half that distance. The day post of the cavalry is generally more advanced than that of the infantry; and the night post is, for shelter, taken in the rear of the infantry.

The number and strength of the grand guards and outposts, whether of cavalry or infantry, depend on the situation of the camp, and the position of the enemy.

The picquet guard is a detachment from every battalion *, appointed for the greater security of the camp; and is constantly kept ready to march out at a moment's warning, to sustain grand guards, outposts, foraging escorts, &c.

The strength of the picquet ought to be so great, that, with the other guards, the army

* Each battalion generally allots, for the picquet guard, a captain, two subalterns, three serjeants, two drummers, and fifty men.

may

may rest in safety, and, if attacked, have time to form without confusion in order of battle.

The picquet, contrary to every other ordinary guard, mounts at sun set, when it is disposed of and posted according to present exigencies.

Besides these, it is usual to have a detachment called *avant guard*, which sometimes consists of 5 and even 6000 men; and is posted between the enemy and the camp, to watch all his movements. In short, so many precautions are taken to prevent surprizes, that it appears next to impossible for surprizes to happen; and indeed, when they do happen, it can only be from too great confidence, or from the general inattention, both of officers and men, to the indispensable duties of the service.

R E M A R K.

Plate IX. Represents an army encamped, with the position of the different guards that are stationed for the security of the camp.

Mr. G. R. FAESCH, Colonel of Engineers, has lately published, at Leipzig, a collection of maxims from the best writers, not only on camps, but on every branch of military science.

Authors

Authors from whom the following Maxims
are selected,

FOLARD	Polybius.
FRONSPERGER	Kriegsbuch.
LAZARUS VON SCHWENDI	Kriegsdiscours.
GIORGIA BASTA	Governo della Cavaleria, &c.
FREYTAG	Architectura Militaris.
LA VALIERE	Pratique & Maximes de l'Art de la Guerre.
M. MONTECUCULI	Memoires.
DILLICHUS	Kriegschule.
FEUQUIERES	Memoires.
M. SANTA CRUZ	Reflexions Militaires.
VILLENEUVE	La Science Militaire.
M. PUYSEGUR	Art de la Guerre.
TURPIN	Essay sur l'Art de la Guerre.*
M. D'ESPAGNAC	Essay sur la Grand Guerre.
M. DE SAXE	Reveries.
RAY DE ST. GENIS	Art de la Guerre Pratique.
M. DE SILVA	Pensées sur la Tactique.

* This valuable book is translated into English, by Captain Joseph Otway.

O F C A M P S.

M A X I M I.

THE camp, which is the space an army has taken up in pitching their tents, is generally of a rectangular form, of which one of the sides is the front, and is directed so as to face the enemy; the other is the rear: the two lesser sides are called flanks.

II.

The first and principal rule in forming a camp, is to give it the same front as the troops occupy in order of battle*, that they may be safely and expeditiously drawn out at the head of their respective encampments. The number of men in the ranks, determines the

* When the ground is very irregular, this maxim, however good, cannot perhaps be always adopted without great inconvenience; and hence arises the distinction of regular and irregular castrametation. It is regular when according to this maxim, and the regular is the subject of this Essay.

extent of the camp from right to left, either of a battalion or squadron. *Puyf.* v. i. c. 17.

III.

The method of encamping is by battalions and squadrons; that is, a space, called *interval*, is left between the several battalions and squadrons, which is generally less than their front. Mr. De Puysegur fixes the intervals between the battalions at 10 toises, and between the squadrons at 6 toises.

IV.

Each man is allowed 2 feet in the ranks of the battalion, and 3 feet in the squadron: therefore, the front of a battalion of 900 men formed 3 deep, will be 600 feet; and the front of a squadron of 150 men formed 2 deep, will be 225 feet.

V.

The depth of the camp when the army is encamped in three lines, is at least 1100 common paces; that is, 300 paces for the depth of each line, and 100 paces for the space between each of those lines. It is more advan-

tageous, when the space between the lines is greater.

VI.

When the extent from right to left is not sufficient to encamp all the troops of the same line, it is usual to make a crotchet on the right or left; or else to increase the number of lines.

VII.

The park of artillery is placed opposite to the center of the infantry of the first line, 3 or 400 paces in front : if the ground does not admit of placing the park of artillery in the front of the first line, it is placed behind its center ; but it seems preferable, in that case, to place it in the rear of the second line, to prevent the confusion which must ensue, if it is necessary for the second line to advance : the situation of the park should always be dry, and rather on a rising ground, *Gr. Gu.* v. i. c. 5.

VIII.

The horse belonging to the train of artillery, should be encamped as near the park as possible. *La Val.* b. i. c. 2.

IX.

IX.

The caissons, or bread waggon, should be stationed behind the camp; and, as near as possible to the center, that the distribution of the bread may be rendered easy. *Gr. Gu.* v. i. c. 5.

X.

When the commander in chief encamps, it is generally in the center of the army. *Puyf.* v. i. c. 17.

XI.

The town or village chosen for the residence of the general, is called *head quarters*, and gives name to the camp. It should be situated in the rear of the camp, as near to the center as possible. *Puyf.* v. i. c. 17.

XII.

But if, through indispensable necessity, it is situated at the head of the camp, it should be covered by brigades of infantry or dragoons. *Feuq.* v. ii. c. 56.

XIII.

XIII.

The same precautions are to be taken, for the security of those villages, that are occupied by the generals who command wings. *Puysf.* v. i. c. 17.

XIV.

That general is inexcusable, who, for his own personal accommodation, makes choice of quarters, that are not properly secured, or are at too great a distance to have an easy communication with the camp. *Feuq.* v. iii. c. 67.

XV.

If the ground permits, the cavalry should be encamped as near water as possible. *La Val.* b. 1. ch. 2.

XVI.

The camp of dragoons who have no fixed destination, is commonly on the wings and out of the line*. *Gr. Gu.* v. 1. c. 5.

* In the German armies, the dragoons are generally in the line, and at the extremity of the wings of the horse.

XVII.

XVII.

When there are hussars, they are placed about the head quarters, or in the front of the army. *Gr. Gu.* v. i. c. 5.

XVIII.

The ground taken up by an army should be equally distributed*, that the battalions and squadrons being at regular distances from each other, the lines may have more grace; for an inequality of disposition, affords a very unpleasing view both of the camp, and of the troops when they are under arms. *Villen.* c. 5. v. ii.

XIX.

An army should, as nearly as difference of ground will admit, always adhere to the same arrangement and order in all its camps, that the troops may be less embarrassed, and comprehend more easily what they are to perform. *Villen.* v. ii. c. 5.

* The precaution of distributing the intervals equally between the battalions and squadrons, and encamping the army in a strait line, is very commendable: but however agreeable this may be to the eye, we should abandon it the moment it exposes or renders useless part of the army. We should rather constantly take advantage of the situation, and even prefer the crowning a hill however irregular the form may be.

XX.

XX.

Cleanliness is essentially necessary to the health of a camp, especially when it is to remain for a length of time : to maintain this, the privys should be often filled up, and others opened* ; the offal of cattle, and the carcasses of dead horses, should be deeply buried ; and all kinds of corrupt effluvia, that may infect the air and produce epidemical disorders, should be constantly and totally removed. *Fronsp.* v. iii. p. 120. *Freytag.* b. 3. c. 2.

R E M A R K.

An army encamped, has great advantages over that which is distributed into quarters : its whole force is more easily drawn together ; it can, with more facility, send out detachments of small parties ; and, to the great ease of the troops, it requires but one guard for the protection of the whole. *Ray de St.G.* v. i. p. 2. c. 2.

“ * Old privys are to be filled up, and new ones opened, every six days ; and while they are in use, a quantity of earth is to be daily thrown into each.” This was an order given by his late Royal Highness the Duke of Cumberland. *Rudiments of War.* S. 5. p. 56.

O F

Of the Choice of Camps.

M A X I M I.

IN the choice of camps there are a variety of objects, each of which requires a particular attention.

II.

At the beginning of a campaign, when the enemy is at too great a distance to occasion any alarm, all situations for camps, that are healthy, are good, provided the troops can be placed at their ease, and within reach of water, wood, and provisions. *Puys. v. i. c. 17.*

III.

The last maxim must be strictly adhered to for camps of long duration. *Sant. Cr. v. iii. c. 3. G. Basta, v. ii. p. iii. c. v.*

IV.

More ground should be allowed to the troops in camps of duration, than in temporary camps. *Villen. v. ii.*

V.

Convenience and safety are the principal objects for all camps. *Laz. Schw.*

VI.

Camps should be situated as near as possible to navigable rivers, to facilitate the conveyance of all supplies. *Frey. v. iii. c. 2.*

VII.

A camp ought never to be taken near heights, from whence the enemy may overlook it. *Dillich. v. i. b. 3.*

VIII.

Nor too near woods, from whence the enemy may surprize it. *Frey. b. 3.*

IX.

If there is an eminence not commanded by any other, it should be taken into the camp. *G. B. v. ii. p. 3. c. 8.*

X.

If there are eminences that cannot be taken into the camp, they should be fortified. *Fr. b. 3.*

XI.

XI.

The choice of a camp depends on the position of the enemy, and its strength on the nature and situation of the country. We should avoid encamping cavalry in woods, which should be occupied by the infantry; and, above all, cover our wings. *Turp. b. i. v. i.*

XII.

When an army is marching through an enemy's country, or where he is near at hand, every precaution should be taken in forming its camp, and no situation should be chosen till it has been well reconnoitred. *Frey. v. iii. c. 2.*

XIII.

In search of an enemy, the several camps on the road should have the rivers, rivulets, and defiles through which the troops are to pass, in the rear. In avoiding an enemy, the contrary to this is to be observed. *Puyf. v. i. c. 17.*

XIV.

In such camps, the troops which are to form the van for the next march, should be encamped as near as possible to the road they are to take. *La Val. b. i. c. ii.*

XV.

When superior or equal to the enemy, we should endeavour to occupy a camp, from whence we can penetrate into that country where he has the most interest, and which he most wishes to protect; so that if he abandons it, no future advantages can recompence the loss. *Puys. v. i. c. 17.*

XVI.

If the design of penetrating into such a country succeeds, chuse a camp in it, where, whether obliged to offer or receive battle, you can engage with advantage. *Ibid.*

XVII.

When inferior to the enemy, chuse a camp so situated as to cover the country which it is your interest to preserve, and from whence you can have an easy and safe communication with your most important places, by shorter roads than the enemy can take to come near them. *Ibid.*

XVIII.

When superior in cavalry, chuse an open country for the situation of your camp; and
3
when

when superior in infantry, chuse an enclosed country, provided the communication between the troops can be preserved. *Villen*, v. ii.

XIX.

When the enemy is stronger in cavalry, encamp in the rear of ravins, hollows, ditches and woods, to prevent his charging with advantage; and to give time to your own infantry to avail themselves of the disorder, into which he must be thrown by such a situation. *Ray De St. G.* v. i. p. ii. c. 2.

XX.

If inferior both in cavalry and infantry, chuse for your camp a situation among canals, mountains, morasses, and rivers, which may cover the wings or the front, and hinder your being surrounded by a superior number of the enemy. *Villen* v. ii.

XXI.

In every instance, the situation of the camp should be such as that its wings may be well sheltered; that the front and rear may be well guarded and covered; that the communication with your magazines may be free and

and open; and that it may not be in the power of the enemy to cut off that communication, without losing the communication with his own magazines. *Puyf.* v. i. c. 17. *Frey.* i. b. iii. c. 2.

XXII.

If, from the situation of the country, the flanks cannot be sheltered by a hollow, a morass, a river, a town, or a village, the hussars and dragoons must be posted upon the wings, but side ways, so as to be able, when the enemy shall come down to charge the first line, to take him in flank, or at least to keep back his second line. *Turp.* v. i. b. i.

XXIII.

A skilful general will avail himself of all the advantages which nature presents him, whether in plains, mountains, ravins, hollows, woods, lakes, rivers, and rivulets. *M. de Saxe,* b. ii.

XXIV.

The ground intended for the camp should be well reconnoitred, to determine whether
there

there is space enough to receive the troops, both for encamping and drawing up in order of battle ; whether there is plenty of wood and water ; and whether the army can come into and go out of it with facility. *Laz. Schw.*

XXV.

The front of a camp ought not to be too extended, nor too contracted ; because in one case there will not be room for the troops to form, and in the other they will not be sufficiently defended. *Frey. b. iii.*

XXVI.

In camps formed on the side of large and unfordable rivers, or opposite defiles and narrow passes, and among mountains, the disposition of the troops is different from that of other camps, as in these the infantry form the first line and the cavalry the second. When camps are intrenched the same disposition often takes place. *Gr. Gu. v. c. 5.*

XXVII.

There are occasions which require the whole infantry to form on the right, and the
cavalry

cavalry on the left ; and there are others which require the cavalry to form in the center, and the infantry on the wings. *Gr. Gu. v. c. 5.*

XXVIII.

There are other occasions that make it expedient for the cavalry to form the first line, with two brigades of infantry for the protection of its wings. *Ibid.*

XXIX.

The distribution of troops according to different situations, is an art in which a general should peculiarly excel.

XXX.

A camp ought never to be formed on the banks of a river, without a space of at least 800 or 1000 yards, for drawing out the army in order of battle : the enemy cannot then easily alarm the camp, by artillery and small arms from the other side of the river ; the guards may be advanced without being exposed ; and within the circumference of the camp and compass of the guards, the army may be supplied with forage for at least 4 days. *Turp. v. i. b. i.*

XXXI.

XXXI.

Camps ought never to be situated near rivers that are subject to be overflowed, either by the melting of the snow, or by accidental torrents from the mountains. *Turp. v. i. b. i.*

XXXII.

Marshy grounds should be avoided, on account of the vapours arising from stagnant water, which infect the air. *Frey. b. iii.*

XXXIII.

It is indispensably necessary to take possession of a camp as early in the day as possible, that there may be time to reconnoitre the country, and obtain intelligence of the movements of the enemy; to distribute the guards intended for the security of the camp; and that the men may be able to pitch their tents, and procure a sufficient supply of wood, water, and forage. *Mont. b. i. c. 4.*

XXXIV.

To take the most advantageous position for an army; to establish a camp on a spot, that by
K its

its situation is strong and secure ; and to have the army within distance of marching easily to the enemy, not only without fear of molestation from him, but with an ability to throw continual difficulties in his way ; is the knowledge most requisite for a general : by this, he can, with an inferior army, not only make head against an enemy, but frustrate all his designs ; he can fatigue him a whole campaign by marches and countermarches, that lead to no advantage ; oblige him often to remain inactive ; and at length draw him into a favourable position, where he will be morally sure of beating him. *Turp. v. i. b. i. c. 5.*

XXXV,

Whatever may be the nature of a country, it is often necessary to have corps detached from the body of the army, to cover some place, or keep open a communication with it ; to prevent the enemy from foraging too near the camp ; to preserve our own forage ; to raise contributions at a distance ; to occupy some advantageous post ; to oblige the enemy to divide his forces, in order to oppose that body ; and to cover the camp either in the front or on the flanks, which soever may be most

exposed: in short, there should always be continual detachments towards the enemy, according to the practice of many generals, and particularly of Marechal de Saxe in the late war. The strength of this body is to be proportioned to the use for which it is designed; but it is usually composed of light horse, some regiments of light infantry, and a brigade or two of dragoons; and in whatever situation it is placed, its communication with the body of the army must always be kept open, that it may be able to join it on the first order; and their camp must be so situated, that the general may always receive intelligence from them of the movements of the enemy. *Turp.* v. i. b. c. 5.

XXXVI.

On the choice of camps and posts, frequently depends the success of a campaign, and sometimes even of a war. *Puys.* v. i. c. 17. and *Feuq.* v. ii. c. 56.

XXXVII.

The science of posts is the principal part of a General's study, and is perhaps the least understood. *Pol.* v. i. b. i. c. 14. *Obs.*

K 2

REMARK.

R E M A R K.

As there is nothing of so much importance as a proper choice of camps, we should, in time of peace, reconnoitre the various situations for camps, in those countries that are likely to become the theatre of war. This will enable us to discover that ground, which it will be most advantageous to occupy, either to defend a province, to penetrate into the enemy's country, to cut off his communications, to attack him with advantage, and, in short, to promote the success of every design either offensive or defensive. With this knowledge, a General, would avoid many faults, that, without it, are as inevitable as they are irreparable. The object is sufficiently interesting, for sovereigns or their ministers to pay due attention to it. *Pensées sur la Tactique. Art. 27.*

Of the Several Guards.

M A X I M I.

THE guards are of two sorts: the one serve to maintain good order within the camp*; and the other, which are stationed without the camp, serve to cover and secure it against the enemy. *Feuq. v. ii. c. 57.*

II.

These guards are formed out of the infantry and cavalry; and, in proportion to the strength of the army, situation of the camp, and disposition of the enemy, they are to be more or less numerous and strong. *La Val. b. 1. c. 3. and Feuq. v. ii. c. 57.*

III.

La Valiere requires, that these guards should consist of the eighth part of the army. *Ibid.*

* The following maxims are applicable only to the guards that cover and secure the camp.

IV.

IV.

G. Basta makes them, for the night's duty, to consist of the third part of the army; and, when an attack from the enemy is apprehended, even of the half. Dillichus says, that they should always be regulated by the nature and situation of the country. *G. Basta.* v. ii. p. iii. c. 10. and *Dillich.* v. i. b. iii. c. 27.

THE MANNER OF STATIONING THE GUARDS,
AND THEIR DUTY.

V.

It is of the utmost consequence to station the guards in such places, as may enable them to discover easily whatever approaches the camp. *Gr. Gu.* v. i. c. 5.

VI.

The guards of cavalry are generally removed further from the camp than those of infantry; and are stationed in highways, in open places, and on small heights: but they ought always to be so disposed, as to be able
to

to see and communicate with one another; and, if possible, they should cover not only the front, and the flanks, but even the rear. Their distance from the camp is greater or less, according to the situation and nature of the country. *Feuq. v. ii. c. 57.*

VII.

But this distance of the guards from the camp, ought never to be so great as to endanger their being cut off; and yet it should be such as to give time for the army to draw out, if the enemy appears. They are generally stationed within cannon shot, or about a mile distant; and even more, if it is an open country. *Ray. de St. G. v. i. b. i. p. ii. c. 2. and La Val. c. 3.*

VIII.

The vedettes to the outposts ought to be double, for the following reasons: first, that whenever they make any discovery, one may be detached to give notice time enough for the officer commanding the outpost to send word to the grand guard; secondly, that they may keep each other watchful; and thirdly, that the vigilance of both on their respective sides,
may

may render it impossible for any thing to come into the plain, without being seen. *Turp.* v. ii. b. iii. c. 6.

IX.

The vedettes ought to be at no greater distance from their detachment, than sixty or eighty paces ; and there should be two vedettes on one side, and two on the other. *Ibid.*

X.

In a covered country, the officer commanding the outposts, to avoid surprizes, should not depend only on his vedettes, but send out patrols to visit the ground in the front and on his flanks. *La Val.* b. i. c. 3.

XI.

The guards of infantry have different objects, and are differently stationed: their duty is to receive and support the guards of cavalry in case of need ; to protect the troops sent out for wood, straw, and water ; in short, to cover the foragers, and prevent any approaches from the small parties of the enemy. *Feuq.* v. ii. c. 57.

XII.

XII.

Some are stationed in the churches of the neighbouring villages, in castles, in houses of strength, and in the passages and avenues of woods; others are stationed on the borders of rivulets, and in every place necessary to obtain security for the camp, and where cavalry cannot be employed. *Feuq. ibid.*

XIII.

The guards stationed in churches, steeples, castles, and houses of strength, ought, if possible, to be seen from the army, or at least, if it is an outpost, from some grand guard in its neighbourhood. The officers commanding these guards should be directed to give the concerted signals, when they are attacked, or when they see the enemy approaching. *Feuq. ibid.*

XIV.

The guards stationed to guard the avenues of the camp, and the borders of rivers and rivulets, under whose protection the horses are grazing, ought to have sentries within sight of each other, that nothing may pass undiscovered. *Feuq. ibid.*

XV.

The guards stationed in the woods, being much exposed to surprizes, should raise redoubts and abbatis for their security : in the day time, they should fix sentries on high trees ; and in the night, they should be particularly alert, and besides stationing sentries all round, they should send out patroles to inspect those sentries. *Feuq. ibid.*

XVI.

The guards of infantry are generally fixed ; that is, they have the same post both in the night and in the day, except such as are appointed to protect and support the guards of cavalry, and to cover the pasture grounds. *Feuq. ibid.*

XVII.

The officers commanding guards of infantry, ought to take with them the tools necessary to entrench themselves. *Gr. Gu. v. i. c. 5.*

XVIII.

The guards of cavalry have a post for the day, different from that of the night ; the
night

night post is seldom more than 4 or 500 paces from the camp: these guards, on their night post, should at least have one rank mounted; and besides a number of vedettes, should send out patrols, to discover whatever approaches the camp. *Feuq.* v. ii. c. 57. *Gr. Gu.* v. i. c. 5. and *La Val.* b. i. c. 3.

XIX.

When near an enemy, the whole guard should be kept mounted during the night, and always half of it in the day. *Turp.* v. ii. b. iii. c. 6.

XX.

As soon as the guards of horse are fixed on their night posts, sentries should be substituted for their outposts and for the vedettes; and they ought to be stationed in low places, because, in the dark, they can better discover what comes from above them. *Turp.* v. ii. b. ii. c. 6.

XXI.

At break of day the guards of horse march to their day post, from whence they send out reconnoitring parties. *Feuq.* v. ii. c. 57.

XXII.

XXII.

The officers must often visit their outposts and vedettes, to see that they are vigilant and alert. When the enemy is at a distance, half the horse of the grand guard may be unbridled; but on the least alarm the whole must be mounted. *Gr. Gu. v. i. c. 5. La Val. b. i. c. 3.*

XXIII.

The security and tranquillity of a camp depending upon the vigilance of all the guards, the officers who command them cannot be too active in preventing surprizes: a neglect in this particular is often of fatal consequence; especially, if the enemy follow in strength the heels of their detachments,

XXIV.

Care should be taken not to spread an alarm in the camp, upon seeing any small detachment of horse or dragoons, which come only with an intention to disturb the army, and to endeavour to carry off some of the outposts. The duty of the commanding officers of these outposts, on the appearance of such detachments,

ments, is to give notice of them without delay and without clamour.

XXV.

Guards or out-posts of cavalry ought never to engage, if the troops which come up to them are superior; they ought rather to retreat towards the camp, and give intelligence of the enemy's approach, that troops may be ordered out for their support.

XXVI.

An advanced guard is not stationed to fight, but to give information. *Turp.* v. ii. b. iii. c. 6.

XXVII.

When several guards are detached for out-posts, it is usual to diminish the grand guards, provided the number left is sufficient to cover the camp. *La Val.* b. i. c. 3.

XXVIII.

Though an officer ought, at all times, to be strictly attentive to every part of the service, yet he should be more particularly watchful in the night than in the day.
The

The night is the time most favourable for surprizes, as those who are not on duty are asleep, and cannot immediately afford assistance; but, in the day, the attention of all the troops is turned to the movements of the enemy, they are sooner under arms, sooner in readiness to march, and in much less danger of being thrown into confusion. *Turp. v. ii. b. iii. c. 6.*

R E M A R K.

Mr. De Santa Cruz proposes, that the advanced guards, or outposts, should have a distinct watch-word besides that of the army.

F I N I S,



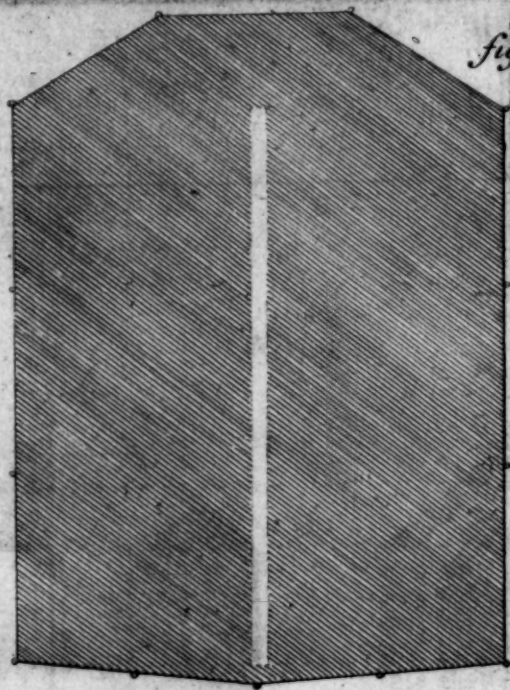


fig. 1

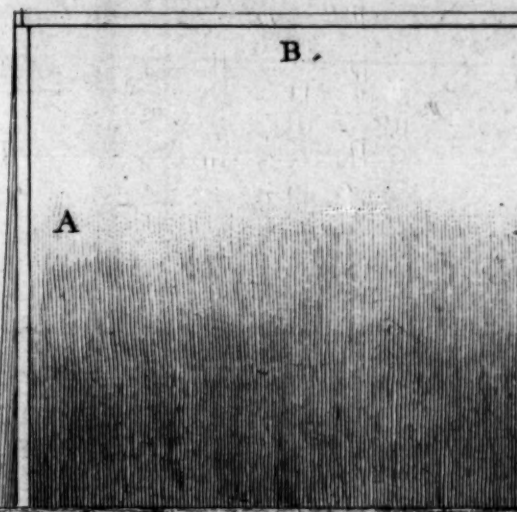


fig. 2

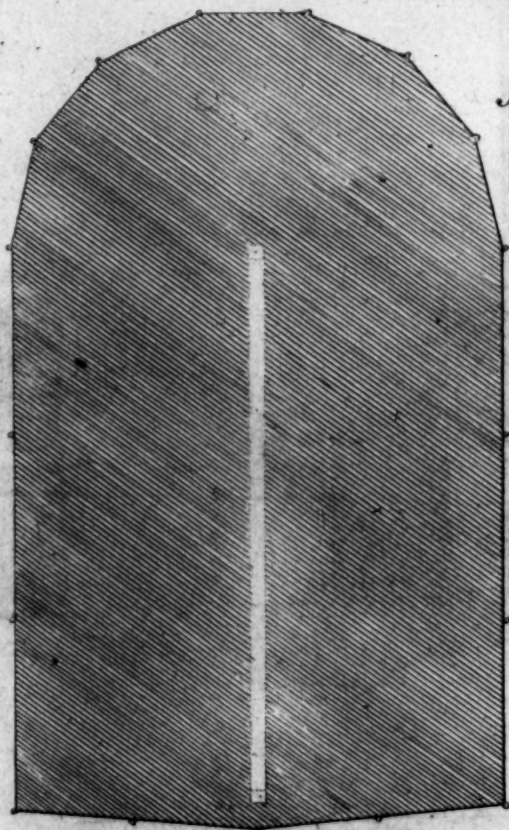


fig. 4

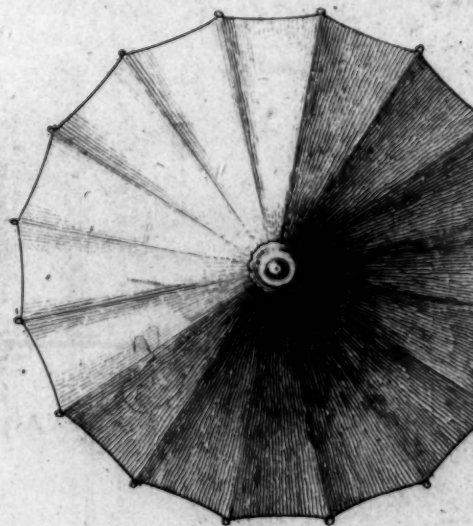


fig. 5

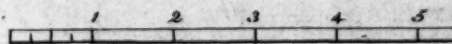


fig. 3

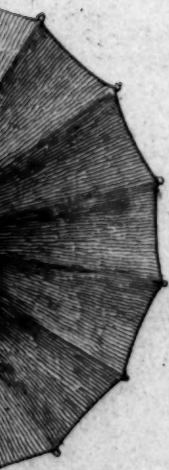
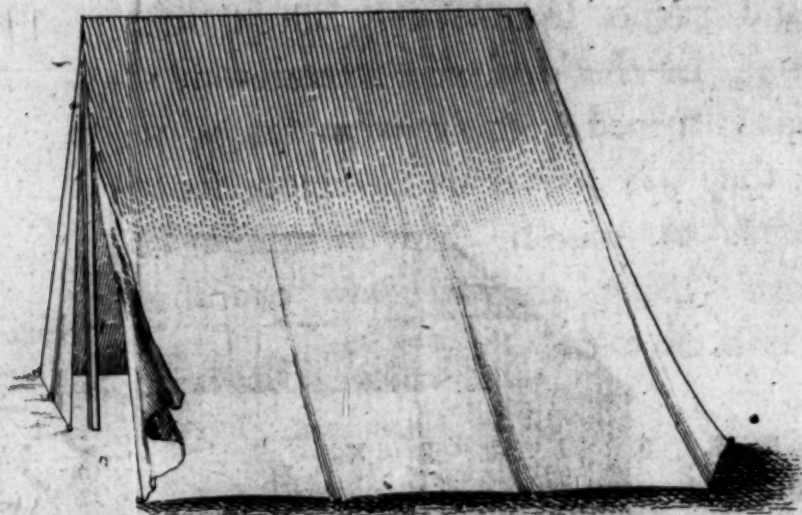
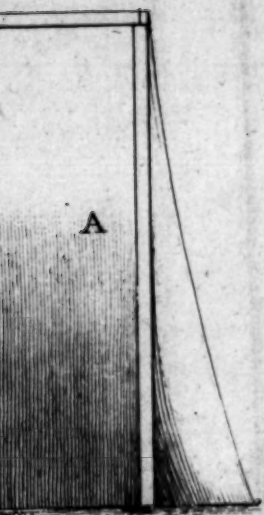
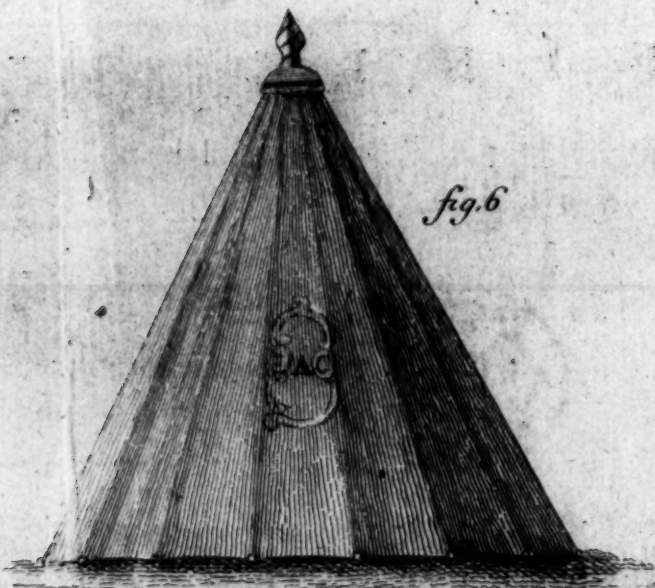


fig. 6



5 6 feet

Fig. 4.

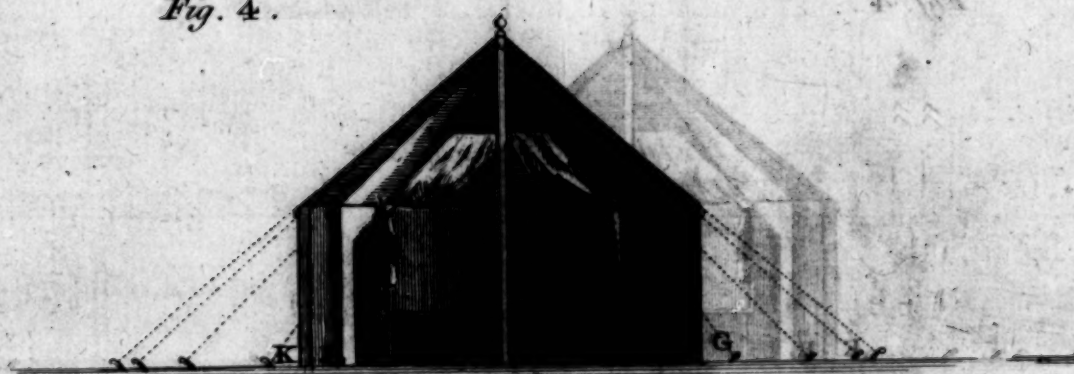


Fig. 2.

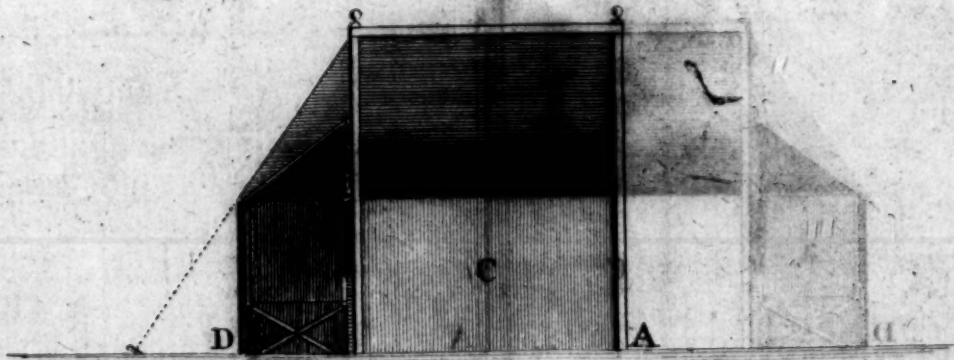


Fig. 3.

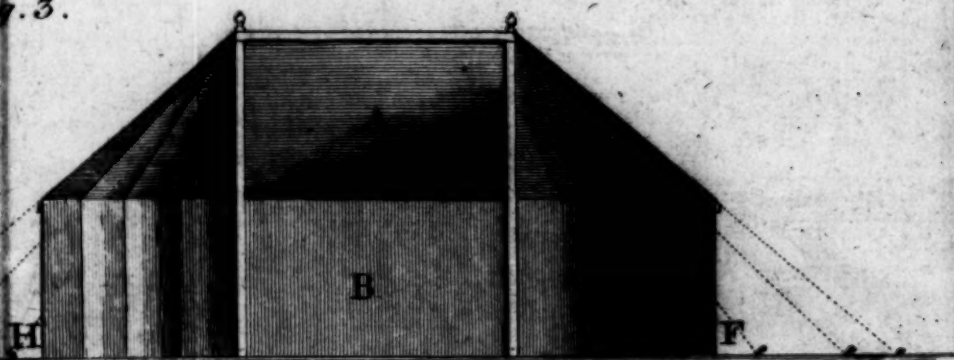
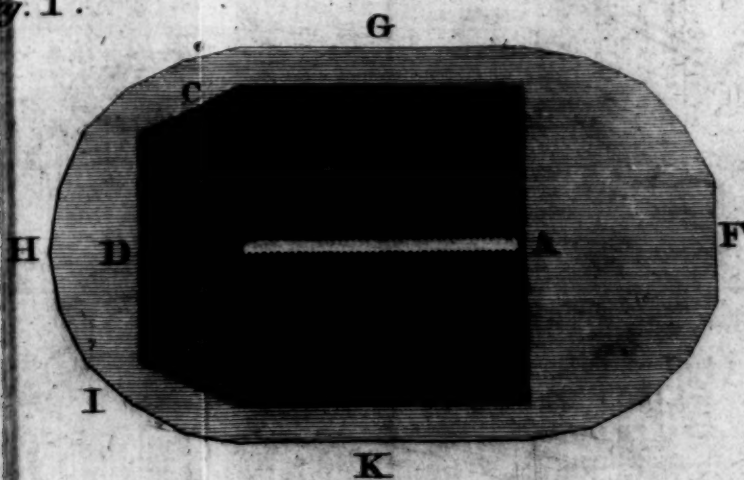
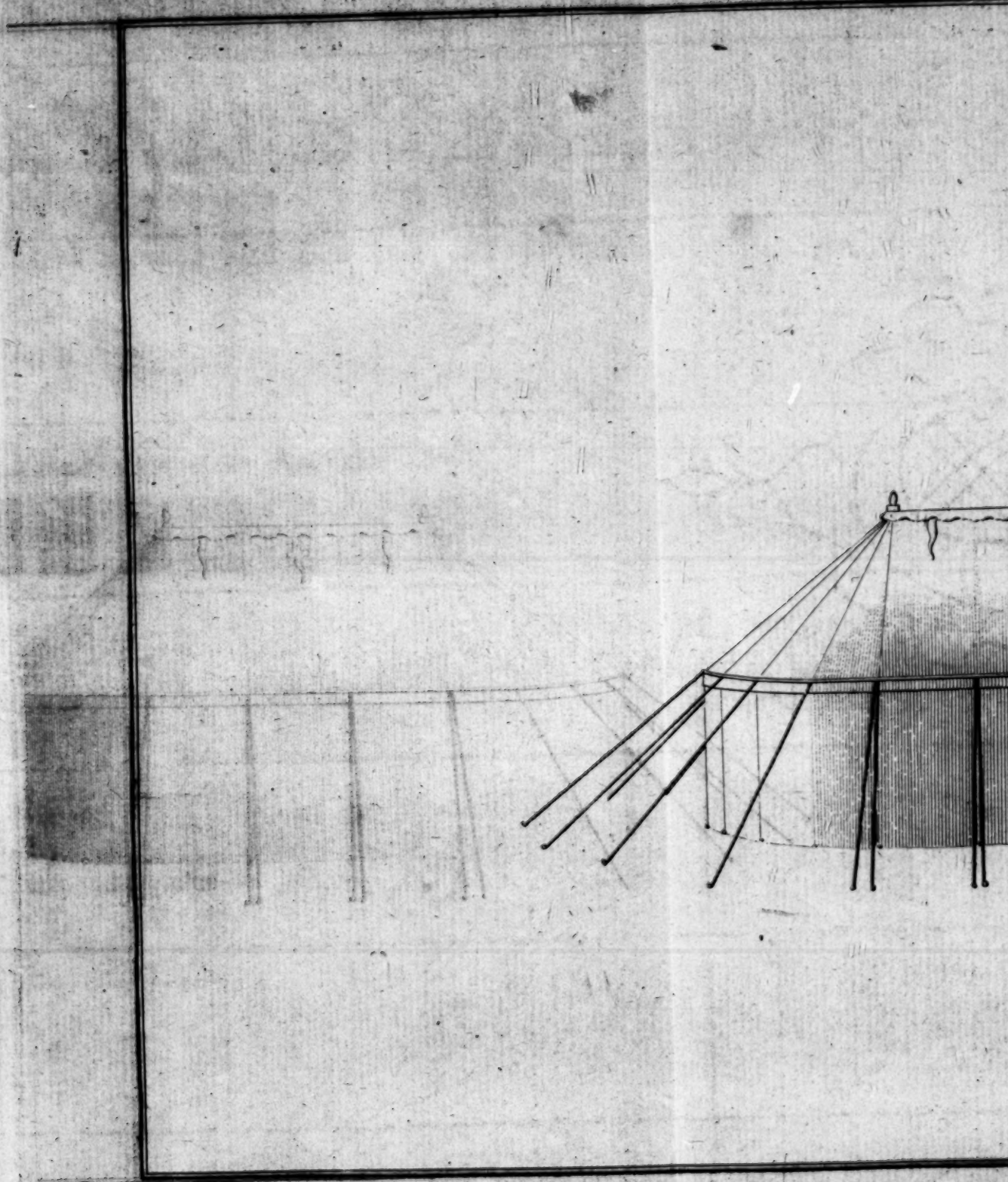
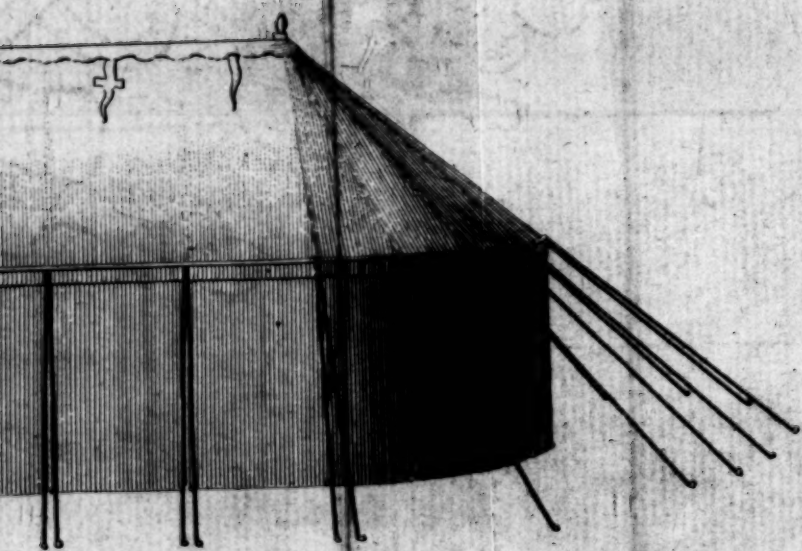
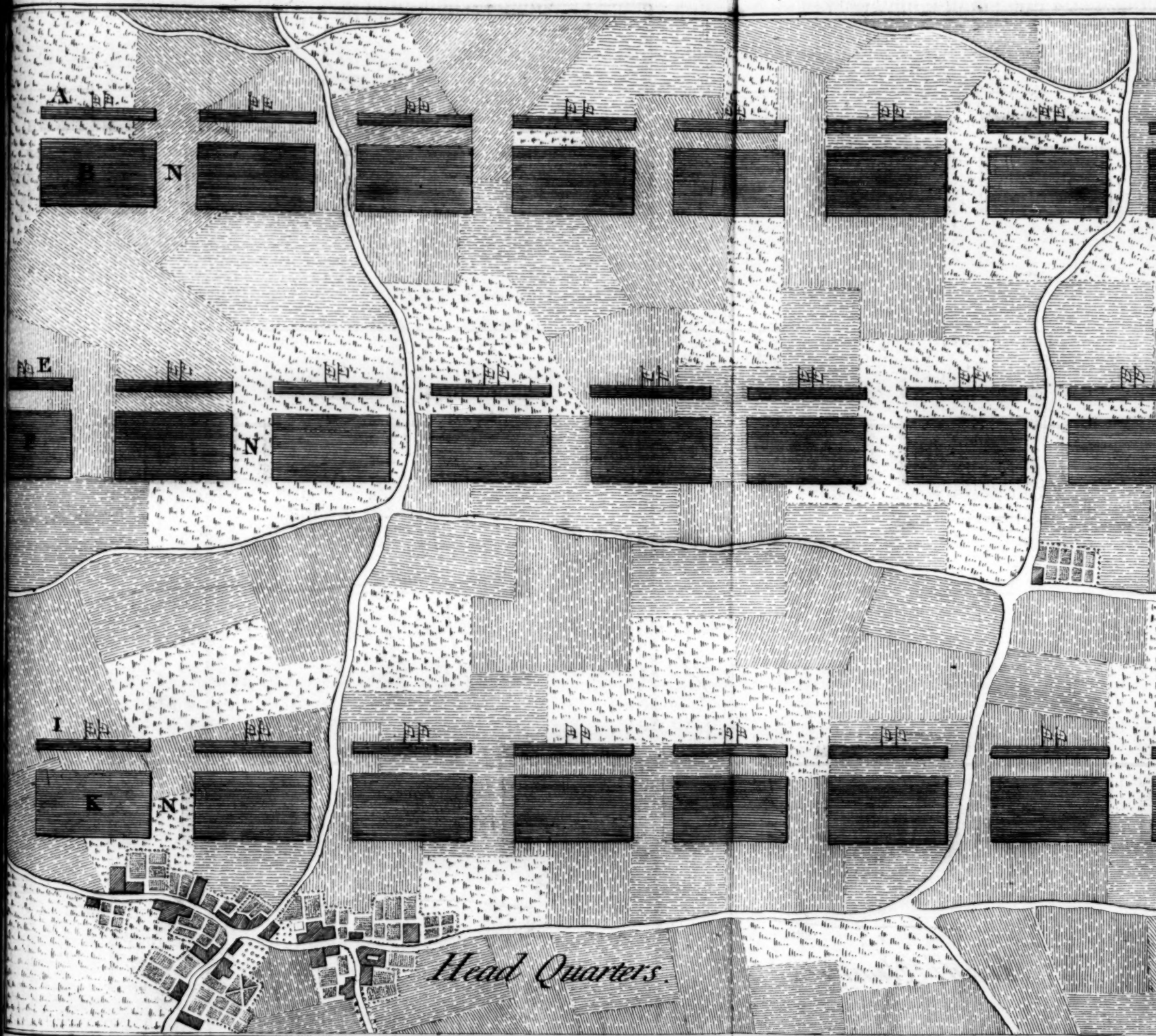


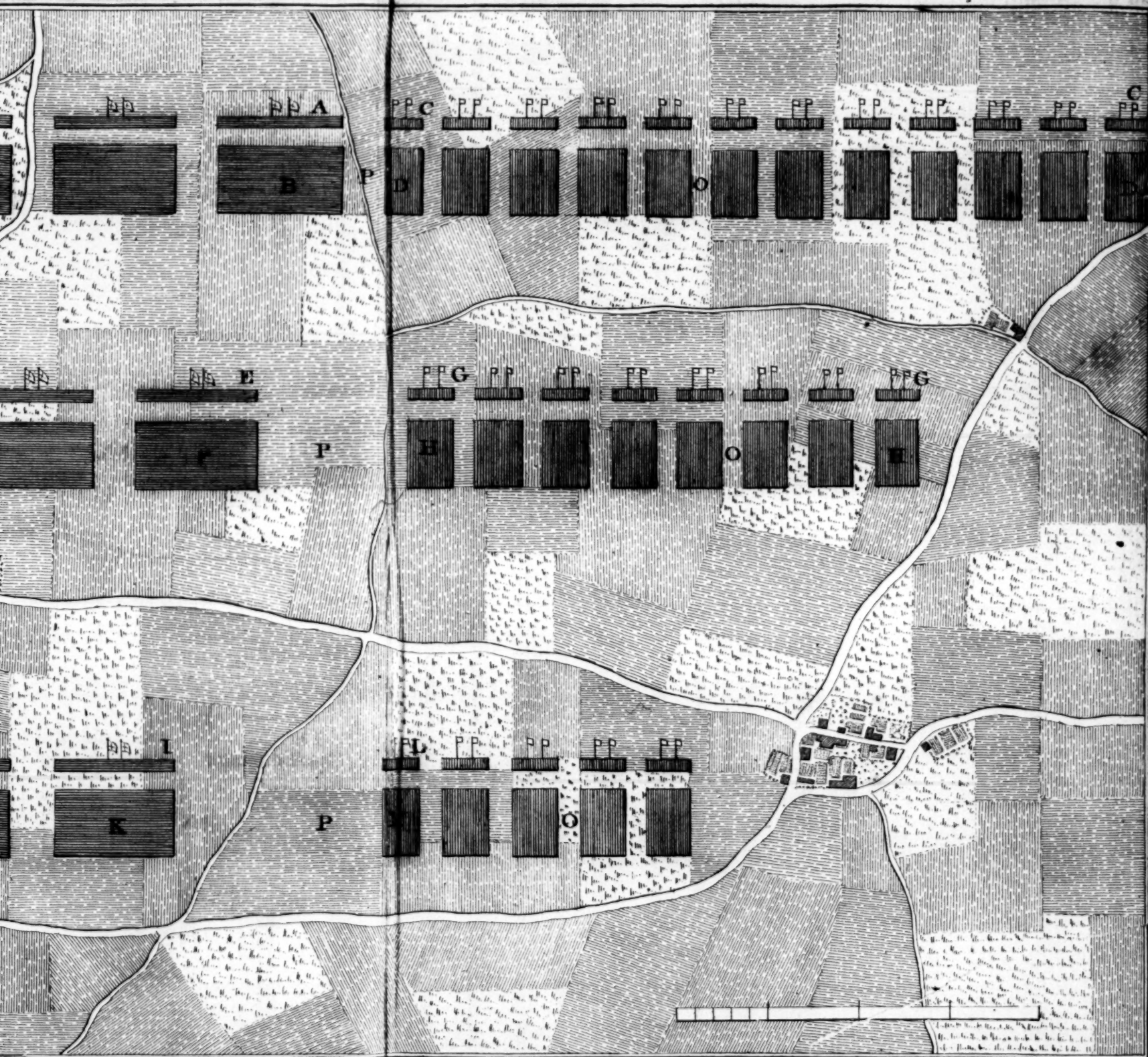
Fig. 1.



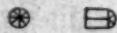








Quarter Guard.

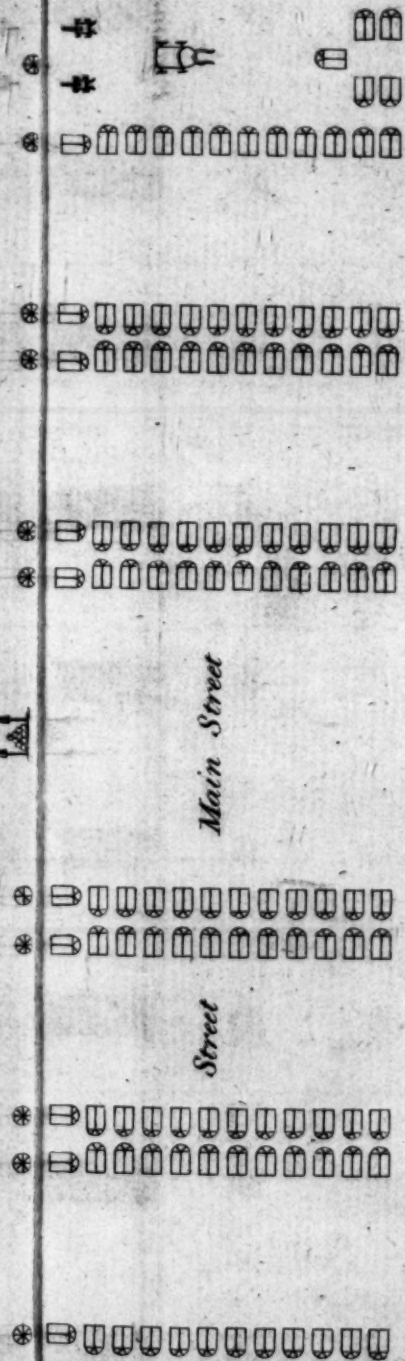


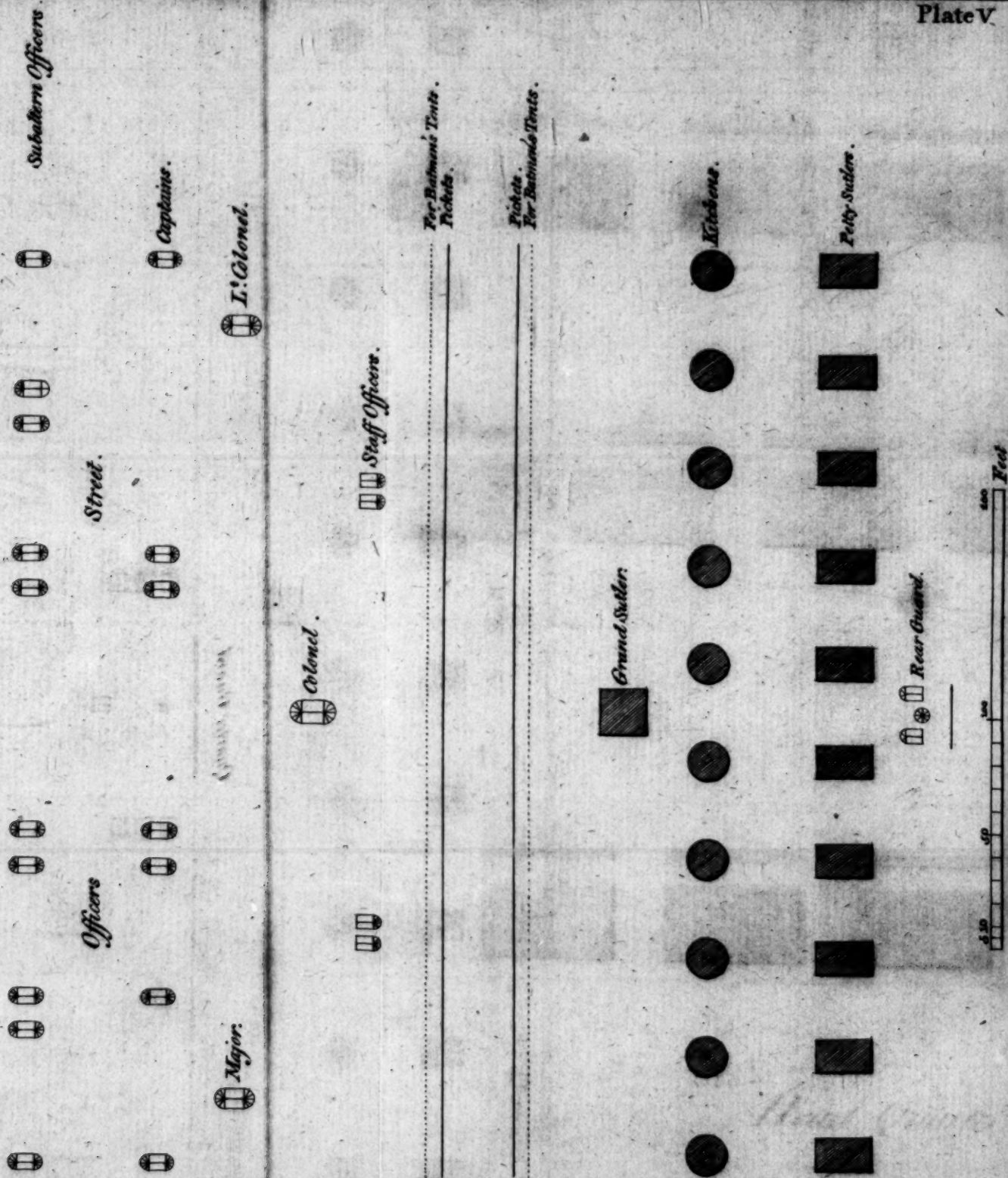
Engine of Parade

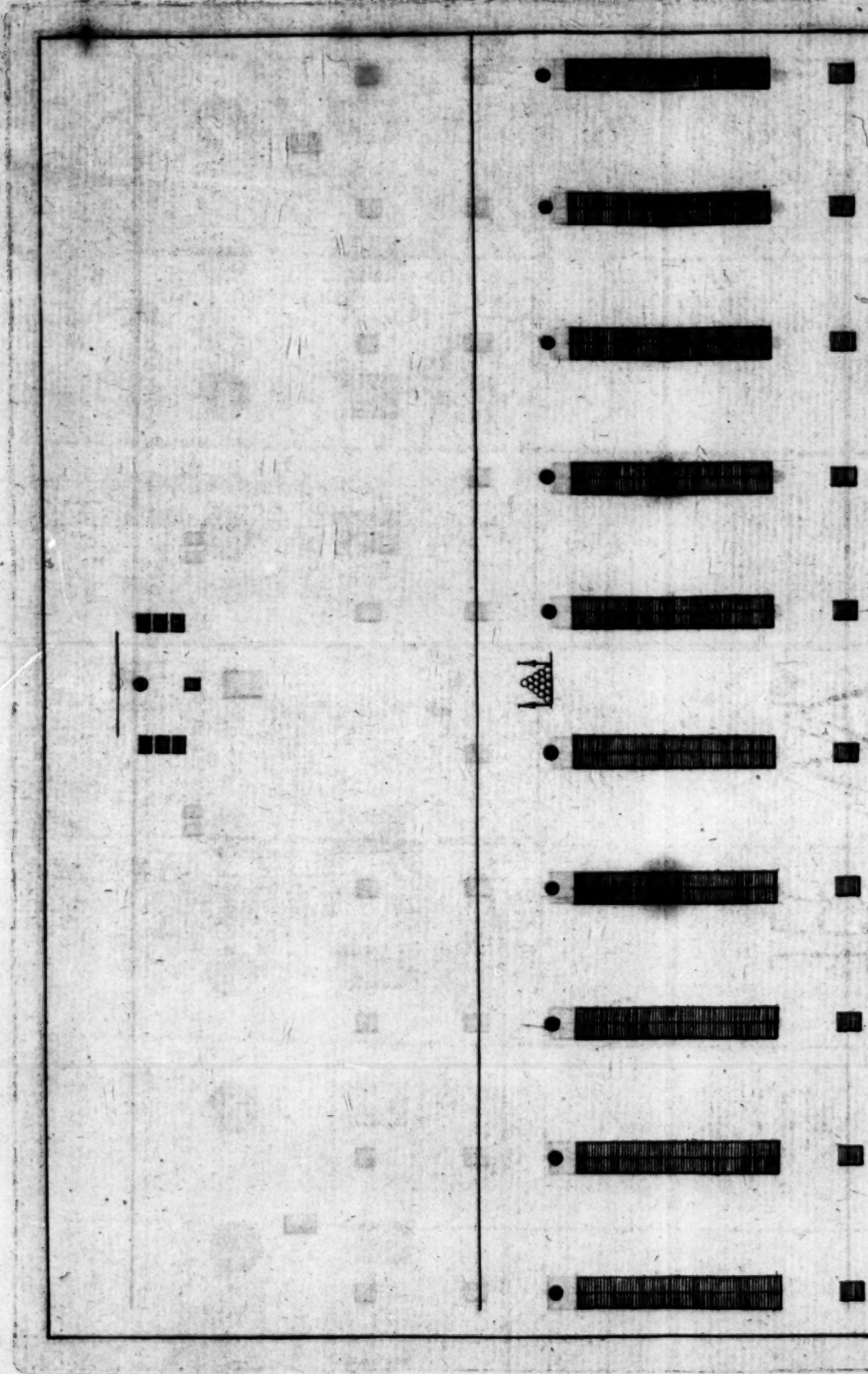


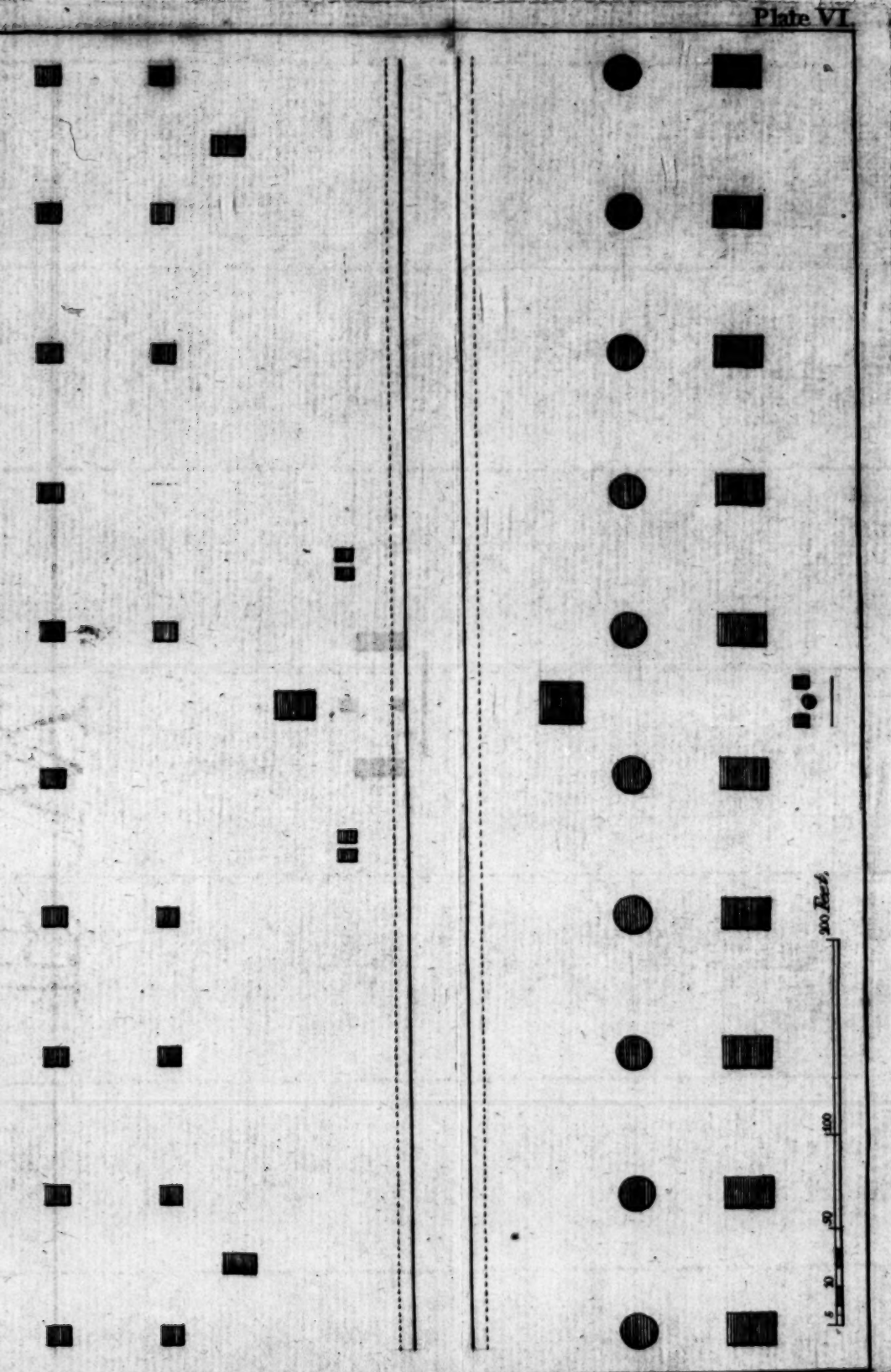
Main Street

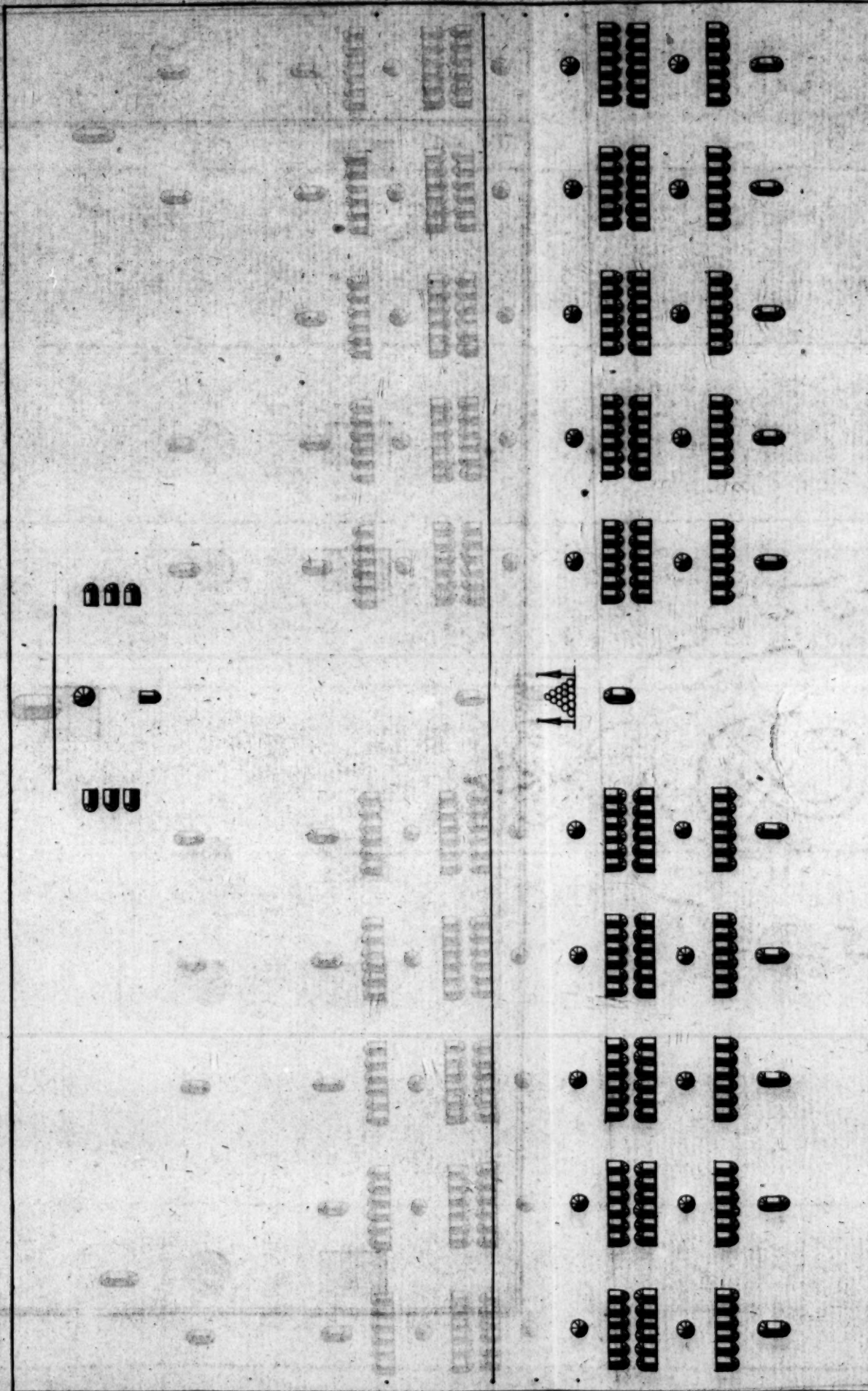
Street

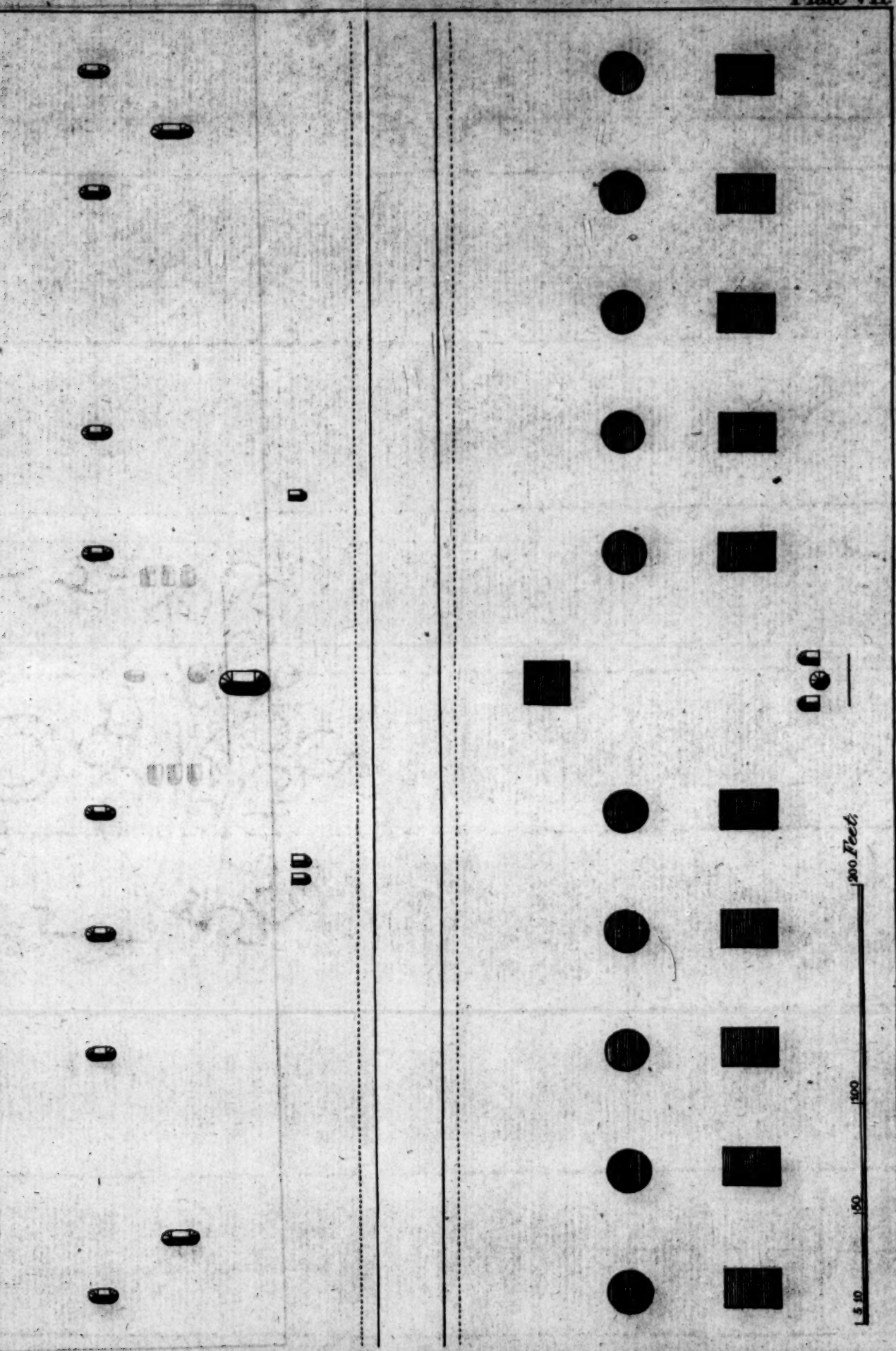


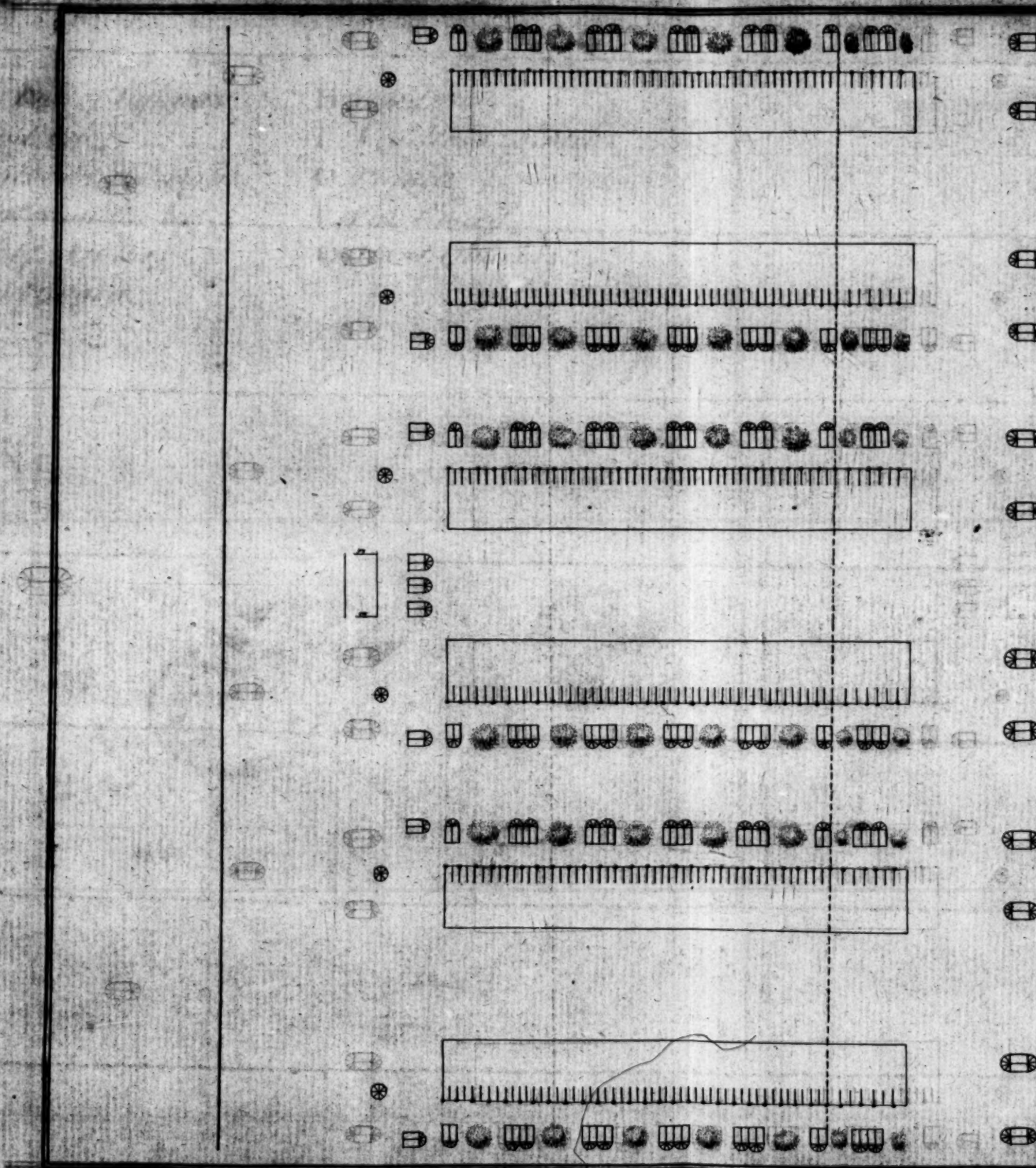


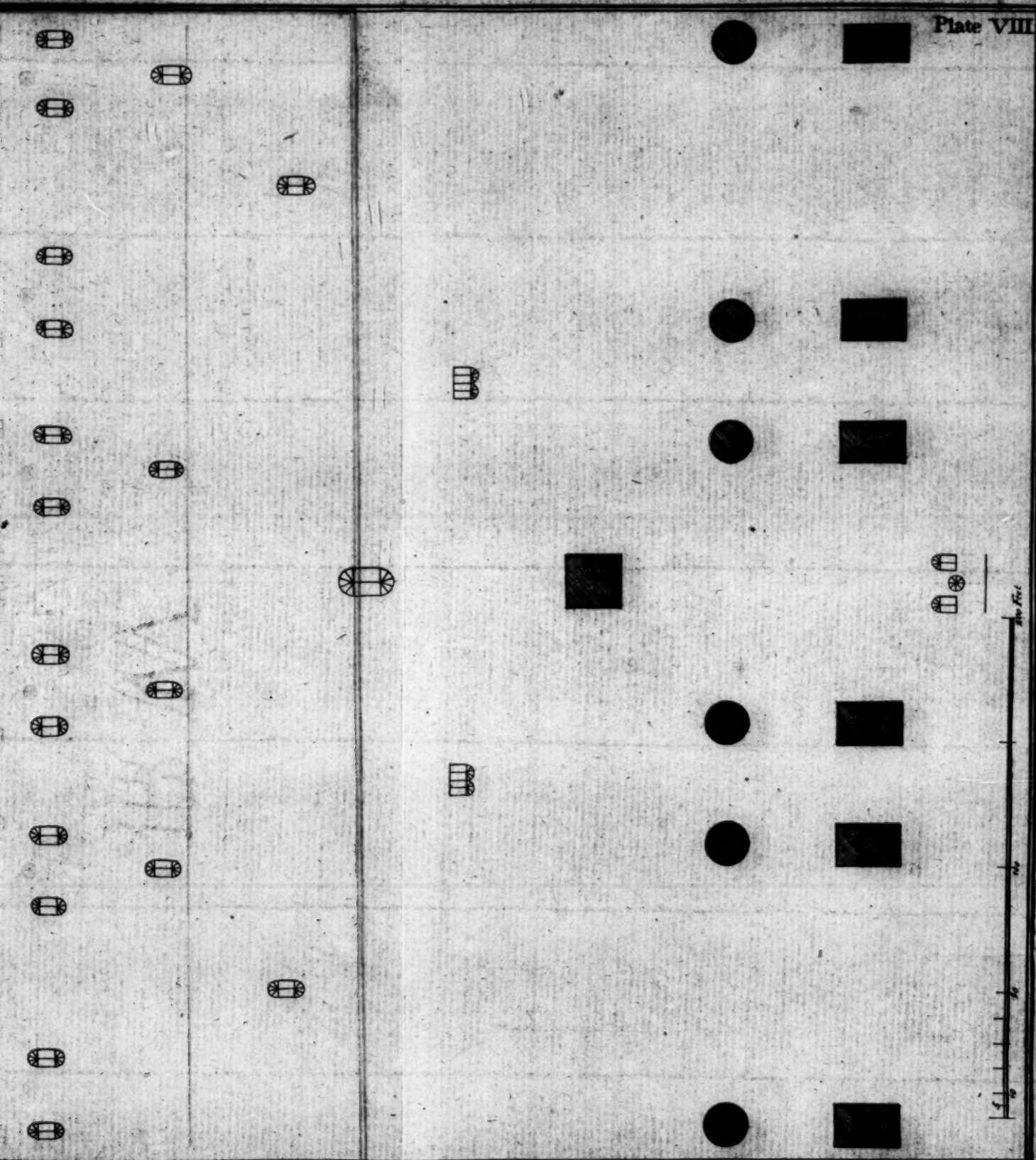










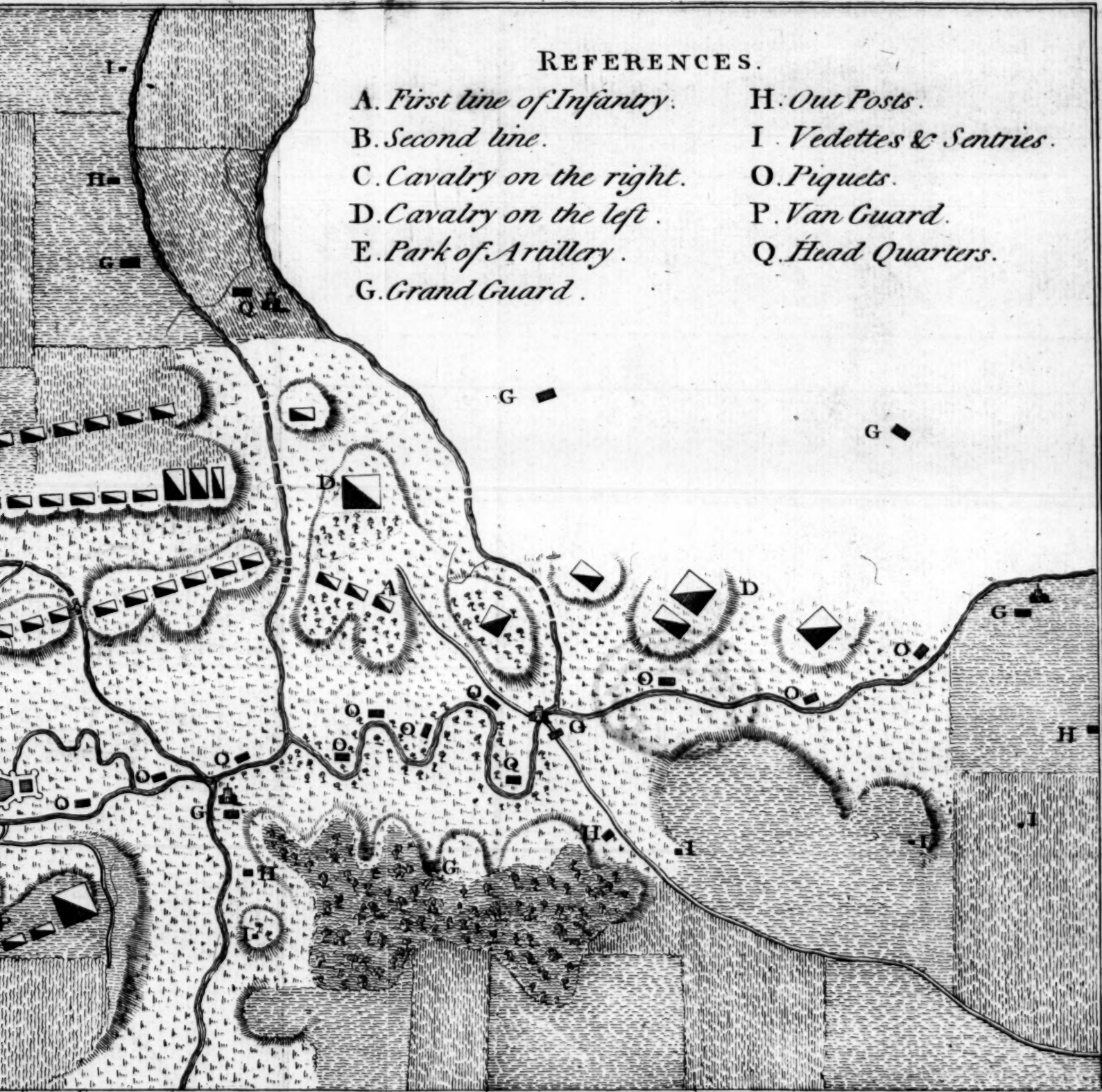




REFERENCES.

A. *First line of Infantry.*
 B. *Second line.*
 C. *Cavalry on the right.*
 D. *Cavalry on the left.*
 E. *Park of Artillery.*
 G. *Grand Guard.*

H. *Out Posts.*
 I. *Vedettes & Sentries.*
 O. *Piquets.*
 P. *Van Guard.*
 Q. *Head Quarters.*





Just published,

In Two Volumes, Octavo,

D E D I C A T E D,

BY PERMISSION,

T O T H E K I N G;

A

S Y S T E M

O F

MILITARY MATHEMATICS.

BY LEWIS LOCHÉE,

MASTER OF THE

MILITARY ACADEMY, LITTLE CHELSEA.

Just published,

BY THE SAME AUTHOR.

AN

E S S A Y

ON

MILITARY EDUCATION:

THE SECOND EDITION.



ELEMENTS OF FORTIFICATION,

IN ONE VOLUME, OCTAVO:

BY THE SAME AUTHOR.

